LIFE AND CONFESSIONS OF A PSYCHOLOGIST

BY G. STANLEY HALL

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SENESCENCE

JESUS THE CHRIST IN THE LIGHT OF PSYCHOLOGY

RECREATIONS OF A PSYCHOLOGIST

MORALE

ADOLESCENCE

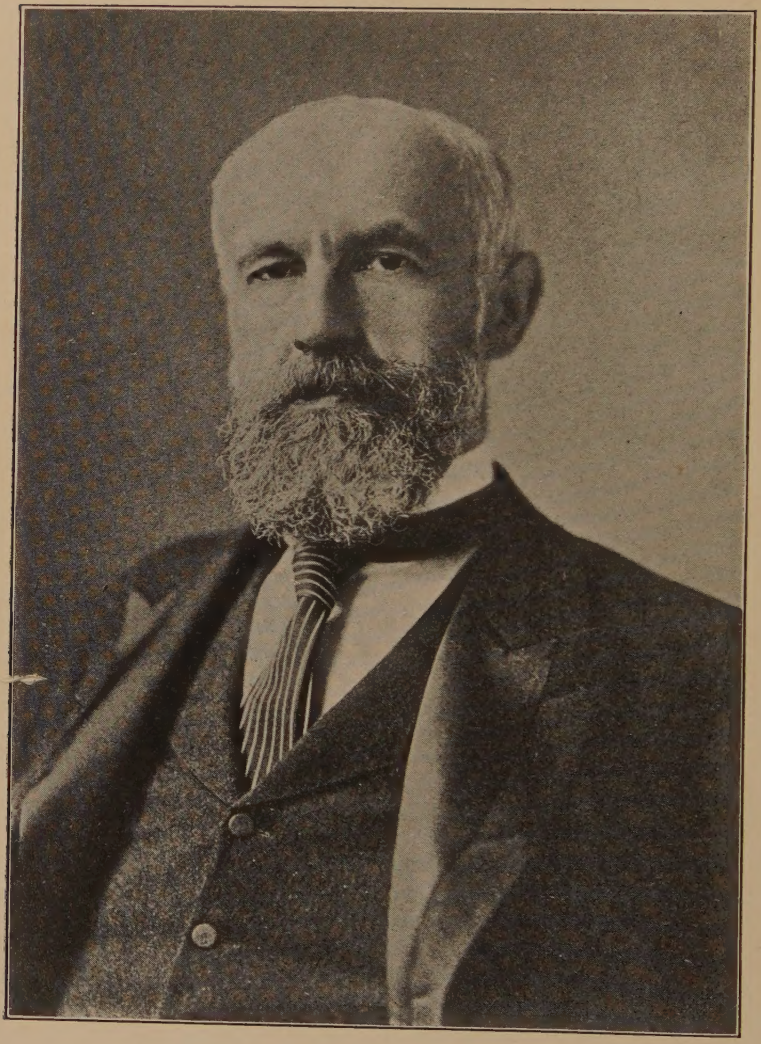
YOUTH

EDUCATIONAL PROBLEMS

FOUNDERS OF MODERN PSYCHOLOGY

ASPECTS OF CHILD LIFE AND EDUCATION

D. APPLETON AND COMPANY
New York London



G. Stanley Hall

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G. STANLEY HALL

AUTHOR OF "ADOLESCENCE," "SENESCENCE," ETC.

D. APPLETON AND COMPANY

NEW YORK :: :: 1924 :: :: LONDON

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ACKNOWLEDGMENTS

I wish to acknowledge my gratitude and obligations to the following persons: my sister, Miss Julina O. Hall, who has supplied much data for chapters II and III; my aunt, Mrs. Augusta W. Beals, who has recorded various memories and impressions of my early life and surroundings; Louis N. Wilson, who in writing a sketch of my life in 1914 (144 pp.) collected much material and printed an exhaustive bibliography of my papers to the above date, and also to my secretary, Miss Mary M. McLoughlin, who has not only typed and read the proof of this volume, but has run down many references, verified and corrected many details, supplemented the above bibliography to date, and made many helpful suggestions throughout.

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LIFE AND CONFESSIONS OF A PSYCHOLOGIST

CHAPTER I

INTRODUCTORY

How and why this volume was written and why published—The standpoint from which the later chapters were written—Present status, recent progress, and prospects of psychology and education—How I became interested in child study—The beginnings of laboratory psychology in this country—Dangers of decline: (1) the limitations of Wundt (2) of introspection (3) of psychoanalysis (shame the real cause of its cure) (4) of tests—Further study of basal instincts most hopeful of the present lines of psychological advance—Some educational changes within my memory—Natural history of young people—Present defects and dangers in education here—Need of abler men and larger ideas—Causes of educational reforms in the past—Education the chief hope of the new world democracy.

The Hegelian dictum, *Die Weltgeschichte ist das Weltgericht,* which suggests that historiography has a judgment day function, is quite as true of autobiography. One cannot honestly review his own life without passing at least implicit judgments, favorable or unfavorable, upon it or subjecting it to the higher moral criticism of worthfulness in itself and usefulness to others. Each stage of it, too, is itself a kind of judgment upon that which preceded. One must thus strive for frankness and unreserve, which I have done save for certain of the results of self-psychoanalysis. He must be as detached, objective, and im-

personal as possible while recognizing that in this direction one can never quite attain this goal for himself. His prime motive must be a better knowledge of himself, and it was with this in view that nearly all of the first six chapters of this book, and parts of the subsequent ones, were written some years ago and then laid aside, with no definite thought that they would ever be published, at least during my life. Their writing and rereading as a whole has served their main purpose in making me better acquainted with myself than ever before and has shown me how my maturity was concealed in my childhood and how the latter stood revealed in the former in ways that for a genetic psychologist were not only illuminating but profitable for whatever future remained to him. On the other hand, my later life has been so exceptionally different from my juvenile condition that I believe I can look upon the latter with rather more than usual aloofness.

But why publish what had abundantly served and, I think I may add, so well served its original purpose? This does need some justification if not apology. Hundreds of possible autobiographies of men far more prominent and helpful to the world than I have never been written. Not one of the some half score among my acquaintances whose lives have been more eventful and significant than mine and whom, since I began this record, I have urged to do likewise for themselves, have responded to this suggestion, perhaps because they have a modesty which I lack. I do feel, and deeply, that there is a certain presumptuousness in unveiling one's life in public, especially when this reveals certain blemishes which are sure to make some of one's friends esteem him, not more but less. But I am sure those who know me best would agree that I am no egoist or even too prone to reminiscence, so that the first-personal style is somewhat new to me

and involves a self-consciousness which some would feel less acutely.

It was not the publisher, who urged that autobiographies are now more read than anything save the most popular novels, nor those of my friends whom I thought were partly moved by curiosity, who impelled me to brush off the dust of years from my manuscript, add a little to the early and more to the later chapters and also two new ones on the changes in psychology and in the theory and practice of education during my span of years. The last has helped me still further to see myself in a larger perspective.

Deep down beneath all our conventions, pretenses, hypocrisies, compensatory camouflages of defects which are life-long and disguise us even to our closest intimates, I am convinced there is in all honest souls a real desire not only to know themselves but to be known by others who care for them as they really are, stripped to the buff of all disguises. Underneath and counter to all the resistances, inner and outer, there is a motive to self-expose our psyche, to exhibit not only our sins and deformities but our very vanities and conceits, defying censure and even ridicule, often so much harder to bear. This is less difficult if one has only a few closely bound to him by ties of blood or affection to be appalled by his revelations. The impulse to the latter is also stronger if one believes that aside from plasmal immortality (as represented by offspring) only influential immortality awaits us. This confessional impulse is still more reënforced if the lines of one's life work have diverged somewhat from those which most of his colleagues have selected to pursue, leaving him thus a trifle isolated yet convinced that his way is the right one and, although now only a trail, will sometime become the royal highway if it is blazed and charted before all traces of it are lost. Finally, while every one, as his life draws

to a close, feels that it is unfinished and there are many things he would and ought to do before it ends, one who has had the good or ill fortune to have planned and wrought for years at certain tasks which he has come to realize he can never finish, is impelled to leave behind him at least some note as to what these belabored and more or less elaborated beginnings were before they are destroyed, as most of them must be since no literary executor seems likely to be found.

I have tried to be objective and even in publishing have in mind chiefly the narrow circle of my friends and acquaintances. But one cannot help becoming very self-conscious in doing this sort of thing, and this my psychology tells me is paralyzing, aside from the fact that it is generally the last thing any one does unless it be to compose his epitaph. It is a kind of pupation, which is the last act of many insects. In my case it is, in some respects, more like the expensive coffin a Chinaman makes and elaborates, with much output of time and money, and then decides to sell because he wants to use in his own lifetime what it may bring. The motives which, I believe, underlie some autobiographies published during the author's lifetime are to provoke those who take note of them to say in advance, while he can yet hear, what they would say if they were writing his obituary later; or to see that a record intended for posthumous publication is not deemed by surviving friends to be unimportant or to contain material they would prefer to have suppressed. Both these motives might be found by a psychoanalysis which ran deep enough, but I am convinced that they would be vestigial. At any rate, never have I been of so many minds about saying or not saying this or that, fluctuated so often between the resolution to print or not to print while I lived or to provide for publication later,

or to suppress sections or let them stand; while at one stage I very seriously weighed the *pros* and *cons* of destroying it all, compromising finally on the elimination of the one most intimate and confessional chapter. It thus goes to the printer with misgivings I have never felt before and, I will even add, against the advice of some of my most intimate friends who have seen parts of it, together with the most earnest hope on my part that, however it may affect me, it will injure no one else.

The strongest motive to publish was probably the long-repressed impulse to tell the inside story of the early days of Clark University and to correct, so far as I could before I die, the long injustice done me by good men who did not and could not at the time know the facts regarding the relations of Mr. Clark to the institution he founded, which made the story of its first decade so unprecedentedly tragic. By the end of the third year Clark seemed to many outsiders not unlike a derelict abandoned by most of its officers and crew, while to me it was a graveyard of high hopes and aspirations. The collapse of our great expectations and of the plans we thought so nearly ideal was mortifying and humiliating beyond the power of words to describe and there were those who, not realizing the pathos of the situation, were not above taunts and derision. Both the trustees and I would have withdrawn could we have done so honorably but this seemed impossible. So we heartened each other as best we could and went on through the seven long moratorium years of watchful waiting, which were overhung by the great and all-pervading fear that the founder would bestow elsewhere the residue of his fortune, of the size of which we knew nothing. Of this the sequel, especially his will, showed that there had in all probability never been the slightest real danger whatever we did, so that we might have pur-

sued a bolder and more independent course with safety. Many members and friends of the University have long urged that I become the chronicler of its first thirty-one years under my administration and with my retirement the psychological moment seemed to have come to make this record public. Hence Chapter VII came first in time and initial importance and I hope that it may prove of some interest, not only to Clark men, past, present, and future, but to students of recent history and present tendencies in higher education in this country. Small as Clark was, and whatever its importance, in its plan and in its story it was unique.

The other chapters came later and grew into independence. My interest in child study naturally extended to curiosity about my own childhood, which was passed amidst surroundings once common enough in New England but of which ever fewer vestiges now remain, for I can find but very little literature of childhood on the old-fashioned farm two or three generations ago. The big old yellow chest in which all our juvenile literary effusions and other mementoes were kept by my mother was found to lack her book of copious notes written diary-wise of myself, the eldest child, and extending from my birth to well into the beginning of school life. As I remember, it showed her to have been one of the pioneers in child study and the loss of this constitutes more than a serious gap in my own self-knowledge. With it Chapter III would have had more value or greater interest, at least to me. I think that the fact that I had studied so many of the outcrops of child life before becoming interested in the stages of my own helped me to objectivity, as it did to the selection of viewpoints and the truer appreciation of the many factors of juvenile life. The same is true of adolescence and, to some extent, of senescence itself. It

was thus fortunate that general study of each of these life stadia preceded the personal study.

Again, but for the reminiscent survey set down in this volume, I never should have realized how much I owe to my parents and how in all my *thun* and *haben* I have simply reproduced their lives, with a few amplifications offset by grave shortcomings in which I have fallen below them; how deeply I am indebted, body and soul, to the country farm life of my early years; how early all my very fundamental traits were developed so that despite all changes in environment I am yet the same in every basal trait that I was in childhood or even in infancy, in which everything in me was preformed; how relatively isolated my life has really been despite all its associations; or how much farther than most and how much beyond what even my most intimate friends suspect I have really gone along the arduous road of *éclaircissement* in religious, social, political, economic, and even ethical lines and how in all these respects I am at heart more radical than I have ever fully confessed to any one or admitted to myself. But if this adds to the sense of isolation, there is a compensating luxury in having reached views that are really too satisfying to be made matter for aggressive propaganda, which would not merely desecrate them but, if their advocacy had any influence, would be too hindering, unpedagogic and unsettling to be justifiable in a pragmatic age when the highest sanction for truth is found in its immediate results upon conduct.

Since the first laboratory devoted to experimental psychology in this country, which I established in the early eighties at the Johns Hopkins, the foundation of my *Journal* in 1887 (the first of its kind in English), and the organization of The American Psychological Association in my study thirty-two years ago, this department of learning has had a re-

markable development in this country. It was essentially at first an importation from Germany but now there are probably more workers in this field here than in all Europe, if not in all the world, and our productivity, at least in quantity if not in quality, is no less preëminent. The annual meetings of the Association are conducted in parallel sessions devoted to general, applied, comparative, experimental, clinical, and measurement psychology and among the sessions of these sections the several hundred members distribute themselves, with frequent joint meetings and symposia; while we now have a score of journals devoted to pure or applied psychology and an ever growing number of books, monographs, and theses of all degrees of merit and originality. For years we sat at the feet of European *savants* but we have of late grown more independent and authoritative and the best work done here is perhaps about as well known in Europe and as often quoted and discussed there as the work of foreign *savants* is here. But with all this output I find a growing dissatisfaction with results, which has greatly increased since the War, and a growing uncertainty as to whether we are really on the right trails. These trends are very diverse and, to some extent, antagonistic. The problems attempted are sometimes trivial, special, and lacking in perspective; their treatment is often needlessly technical, with methods predominating to such an extent over matter; and there is a lack on the part of leaders along each line of real leadership, little impulse to get together and see eye-to-eye and come to a mutual understanding, so that the future of this department is now gravely beclouded, while the experimental introspectionists have developed an organization, if not a kind of cult of their own, and just now seem in danger of becoming a sect apart and by themselves.

Thus, it is not that I have lost touch with present tendencies or because, as old men are so prone to do, I have lapsed to a mere *laudator temporis acti* that I deem it fortunate that my most active years lay in the stages of development of this department when interests were less specialized and there was more freedom and it was better form to pass from effort in one to that in other directions. By this course it was possible at least to get, if not to do, more good, and that advantage should not be lost sight of to-day. When my limited capacities reached their saturation point in one domain I turned to another, and this is so old-fashioned to-day, if not obsolete, that I have ventured in Chapter VIII to describe my mutations of this kind in some detail. One of my severest critics dubbed me "an incorrigible *enfant terrible* in psychology." How I wish that were really true! I would rather be a fool of the Parsifal order stumbling along paths wiser men would fear to tread than a partisan who could not see impartially the real good being done by all who make positive additions to our knowledge of any part of Mansoul, which has so many chambers and so many ways of entrance. Thus I believe there is a growing consensus of the competent that the condition of psychology in this country, and indeed throughout the world, is far from satisfactory and that the promise of two decades ago has not been fulfilled; also that, as far as can be now foreseen, its status is likely to grow yet worse before it can become better, as it is sure to do sooner or later.

As to the causes of this decline, probably no two experts who recognize it (as, of course, many do not) would formulate them alike. I would tab them off somewhat as follows:

1. The fact that Wundt, who for so long set the fashions here, served his apprenticeship in physics and physiology instead of in biology (which would

have been a better propædeutic). Hence his disciples have little use for evolution or the genetic aspects of psychic powers and activities. This, too, gave them, as it had given their master, a sense of finality that is not justifiable in the present stage of development of this science, which is in its nascency. A psychology based on *all* the findings of physiology and which develops their psychic side, as has been done in the domain of the senses, does not yet exist. There is no doubt that all physiological processes have a psychological side—tensions, excess and defect of heart action, respiration, digestive processes, elimination, glandular action, internal secretions, etc., but of these we yet know but little.

2. Introspection, that catches innumerable flitting phenomena, most of which are superficial or marginal and, without immediate introversion, would generally never be known at all because they are so nearly unconscious, has made very important generalizations from such data. It, however, makes little effort to explain their origin. Its material is gathered from a small and narrowly restricted class of individuals—especially trained graduate students and their teachers. Its quest is for psychic elements when in fact there are no such things but only psychic germs. It claims to be the only Simon-pure psychology but it is so only in the sense that it treats conscious phenomena as if they were finalities instead of being, all of them, only symbols, and makes no attempt to explain the highly complex categories, determining tendencies, *Einstellungen,* etc., with which it works. It has, however, accumulated valuable data for a more ultimate psychoanalysis which, when it comes, may make a use of its conclusions as different from the purposes they were intended to serve as the critical, scientific, or clinical psychologist does of the psychic researchers' studies of mediums. It has one answer

to all critics, namely, that they do not understand. Much of it might be called the psychology of mental images and it has shed much light. But it gives too scant recognition to other lines of endeavor and has nearly all the earmarks of a sect apart. It is also responsible for the extreme reaction of behaviorism, which is a healthy movement of compensation.

3. Psychoanalysis and the study of the unconscious have been simply ignored or condemned on superficial grounds by most American psychologists of the normal. This neglect is in part explained because of a prudish reluctance to face the momentous problems of sex life. This attitude has, too, a certain excuse in the unfortunate fact that in this country psychoanalysts have fallen too much under the dominion of the extreme Freudians who see sex everywhere and in everything, ignore Adler and the Zurich school, and neglect the wider culture field which this system has opened. The psychologists of the American Association balk, too, at the unconscious, while a dynamic psychology is content with scales measuring degrees of more or less instead of always insisting upon the "either-or" method. In fact, there is no completely unconscious, or even conscious for that matter, just as there is nothing absolutely right or wrong, true or false, simple or complex, no beginning or end, no purely and only pleasurable or painful, etc. There is no absolute psychological as there is a thermal zero. Most psychologists hover about focal consciousness or awareness like insects about an arc light when they are by nature twilight fliers, just as mankind generally is dominated by the deeper-lying and darker processes of his soul, and the manifestation of these is primarily and overwhelmingly behavioristic. Thus human life has its night as well as its day side and the Freudian mechanisms enable us to explore the vast regions of psychic life below the con-

scious surfaces. Nothing since Aristotle's categories has gone deeper or, in my opinion, is destined to have such far-reaching influence and results.

Meanwhile, I venture to record briefly my conviction of the Freudian theory of therapy, which I believe is mistaken. Full confession or objectivization of the contents of the patient's mind is believed to be the curative agent because consciousness is extraditive and tends to rid the psychophysic organism of symptoms. This I believe to be true only in part. True, consciousness is in itself in many ways, and to a far larger extent than we have ever dreamed before, remedial. But it is the motives of shame and shocked modesty which I believe are the chief curative agents in many if not most of the interesting cases on record.

A once very famous, widely advertised, and really effectual cure for dipsomania was said to work somewhat as follows. All the inebriate inmates of the institution, once a day, immediately after the chief meal, were allowed free and private access to a bar, on condition that they always and at once tell the doctor if they had drunk. A trifle later each patient always had a hypodermic injection of a yellowish fluid called a gold chloride solution (in order to justify the high price of the treatment). Normally this fluid was entirely neutral and had no effect, but when the patient was found to have just had a drink the injection was, unknown to him, reënforced by ipecac, with a result that there soon came to be a well-established association between drink and nausea, so that the taste for alcohol became suppressed because its indulgence seemed to be the cause of painful retching. So the Freudian patients soon become convinced that their troubles, of whatever nature, are really due to sex causes and mark this function as more or less abnormal. Hence he or she feels that the symptoms are

in fact, to all who know and perhaps to their friends, perverted, repressed, aborted, extreme manifestations of the procreative impulse and that if the symptoms continue they will be thus advertised as lustful or in some other way perverted at heart, if not that their troubles are really or may be taken by others as a form of exhibitionism. This conviction constitutes the strongest possible motivation to repress and eliminate all betraying symptoms, and this is the cure. And so they get well. Their cure is thus due to a deep instinct to conceal all activities of this function as disgraceful. Hence they are cured by the very modesty which the analyst would destroy and not by the confession which the doctor can secure only by combating this instinct of concealment that they call prudery or resistance.

Perhaps even the wildest and most extravagant use of symbolism may here have a certain pragmatic sanction. Despite all the errors and dangers, however, psychoanalysis really marks, not the first but the full advent of evolution in the psychic field and not only justifies but immensely advances the genetic method, which is surely ushering in a new and synthetic dispensation in this field and which is to be the psychology of the future. It also sheds a flood of new light upon the vast but obscure field of affectivity.

4. The testers are beginning, but only beginning, the great work of applying psychology to practical life and have already shed much light upon individual differences and vocational fitness but have added little to our knowledge of psychology itself. They are as far from being able to measure general ability as educators to determine a curriculum which makes for a truly general culture. They are also no less far from being able to measure the fundamental qualities upon which success in the art of living depends, such as the degree of vitality and the momentum of heredity,

honesty and truthfulness, perseverance, the power of drawing heavily upon reserve energies without collapsing reactions afterwards, as all successful men must do sometimes in crises; mobility up and down the pleasure-pain scale so that they will not be unduly exalted by success or lose the power to react from disaster, which is the supreme lesson of the story of the Cross and the Resurrection; how far they have attained self-knowledge and the ability to compensate for their weaknesses and defects, mobility up and down the age scale so that they keep in sympathetic touch with childhood, youth and those undeveloped, and also anticipate the lessons of old age; how far they were aggressive, independent, eager for and capable of leadership, on the one hand, or were born, or had learned, only to serve and follow, on the other; whether they are narrow, selfish, and egoistic or how far they have developed wider interests in others, in causes, and in the greater concerns of the community, state, nation, and world; how far their *vita sexualis* is controlled and sublimated; whether they love nature, which is the root of all the natural sciences, of literature, and art; the number, direction, and strength of their dominant interests and how their leisure is spent; what is their attitude to religion and also toward the social, industrial, and political institutions in which they live; whether their instincts and diatheses are radical or conservative. It is by rubrics and criteria of this sort that I would evaluate or rate my own character traits and those of others. The real significance of all tests depends upon the wisdom with which they are selected and the correct evaluation of just what they test, and the real worth for life of the kind of ability needed to meet it. And it is to this that far too little attention has been given. Yet it is just this which requires the most thought and we have as yet no standards by which to test

testers, who should be in vital rapport with all the psychological disciplines, as well as with sociology, and should be above and beyond all prejudices for or against any school. I will venture to add in all candor that I have taken or been given many of these tests, especially those for adults, under the prescribed conditions and have fallen short in most of them, and this only strengthens my conviction that something is wrong for I cannot yet bring myself to feel that I lack average intelligence.

5. Just now the most promising psychological lead seems to be the reëvaluation of human life, its *mores* and its institutions, by inquiring how they square with the vastly older basal instinct-feelings of the race—hunger, love, the herd, property, appetencies, and many others, concerning a list of which no two writers are agreed. This requires some knowledge of animals, primitive men, infants, and all we can gather from whatever source about quintessential human nature and its evolution. This is really the testing of all human institutions by the nature of man and not conversely. On the one side this line of advance is as purely scientific as psychology is capable of being, and on the other it seeks to meet the most urgent practical needs of this post-bellum age, which has thrust upon it the most arduous tasks man has ever been called upon to meet and which our civilization must find a solution for if it is not to decline. The world problems are becoming now more and more psychological and this places upon our science a responsibility which we are as yet far from being able to meet, and it is this that should bring home to us a sense of our peculiar inadequacy. The world needs a psychological Plato or, if he would have to be too much of a superman, we may perhaps with more hope look forward to a great synthetic movement which shall bring a new harmony to our now ominously

divided efforts and set us again on the trail we have so unfortunately lost.

As I write, nearly seventy years have passed since I entered our educational system and while the small, ungraded, rural school has not, on the whole, improved, secondary and higher education have made great advances. The average quality of students in both high school and college has probably not improved but declined. The road is so wide open that many who go beyond the grammar grades do so because they are sent, or because others do so, rather than from any inner impulsion to make more of themselves. This is especially the case for students from wealthy homes in our older eastern endowed colleges. Athletics and the social features of academic life are vastly more developed and have a greater drawing power than two generations ago. If college athletics, journalism, theatricals, musical organizations, dances, clubs, and other extracurricular activities were suddenly reduced to the relatively very modest dimensions they had in my college days, no one could doubt that the present size of our student bodies would be materially reduced. Yet each of these activities has a very high value in itself and I should be slow to believe that genuine scholarly effort has declined, greatly as its direction has departed from the old ideals of culture. I am persuaded that this effort has, on the whole, increased, although not as much as it should or as much as the rapidly increasing needs of our advancing civilization demand. The augmented dependence of industry upon science has been the chief factor in bringing these throngs of students to our doors—ten, fifteen, and in one university, thirty thousand of them. In a number of our higher institutions there are, in my opinion, already far too many candidates for degrees for efficient handling, and it is a most wholesome tendency that has prompted

a number of them to devise various ways of limiting numbers, raising standards, refusing to establish novel departments already in efficient operation elsewhere, etc. Numbers, too, make student sentiment more potent than ever before just as the ever lengthening roll of instructors brings increased impatience with the centralization of authority and control by boards, presidents, deans, and department heads.

We really know far too little, too, about what may be called the natural history of young people thus grouped, although it would be a both fascinating and useful work to gather such data and draw their lessons. Later adolescence is a stage of seething unrest liable to sudden outbreaks of sentiment which as suddenly subside and perhaps bring reaction. Uncertain of itself, youth is prone to compensate by positive and perhaps extreme affirmations. There is enthusiasm for everything that is newest and yet a unique conservatism of student customs and precedents. College feeling may flame into revolt at trifles and yet be strangely submissive to authority where revolt would be justified. Youth is very certain what it wants and is out to get it by every means in its power and yet it often utterly misinterprets these desires and really wants and needs something very different. It is gregarious and very intent upon having a good time together and yet there are solitary moods in which the individual seeks to come to terms, not only with the great problems of the world but to understand and size himself up as to his fitness for the various departments of the world's work. It is wonderfully docile if approached aright; yet no less wonderfully immune to the infections of knowledge that does not fit the mysterious nascent periods for it which, when they come, make young men prodigies of receptivity and docility.

It is the vast and sudden increase of numbers of

pupils in all grades that has kept us so intent upon the problems of outer organization, finances, buildings, marks, grading, mass methods, standards, lock-step uniformity, etc., and which has made us try to measure efficiency in studies by the hours, months, and years devoted to them and strive to fit the pupil into the system instead of adjusting it to his nature and needs, which is a later, harder, and more important problem yet facing us. Our chief difficulty is with the teaching personnel. Salaries at every grade are far too low and there are no great prizes possible such as tempt the ambitious in other fields of labor, while very many who teach, from primary school to college and university, are too imperfectly prepared by either aptitude or training for their work.

The few professors who are really able to do creative work are widely known and give the public a far too high idea of their colleagues who do nothing but routine work and are unknown off the campus, for the vocation of academic teaching has its full share of noncompetents and mere routiners. There is danger that the proportion of the latter will increase because of the large numbers of young men called of late prematurely from their studies to handle the influx of new students. This is yet more the case because their functions involve so much drudgery that with the best will to do so they cannot forge their way to real eminence; while in geology, chemistry and, to some extent, in other branches the ablest advanced students are drawn by larger salaries, if not by better opportunities for investigation, to some of our great industries.

New academic departments of education have gone far beyond the old-fashioned normal school. The higher pedagogy, for the high school if not for the college, is rapidly winning adequate recognition and some courses even deal with professional train-

ing, with academies of science and culture values generally, although few rise to the latter. Thus, many if not most of the tendencies in education are in the right direction, but how slow is the progress and how numerous the handicaps! We have high ideals, too, and that is well. But they are not high enough and we have no educational statesmen, no far-reaching reforms, and no outstanding reformers to make headway against the trends, always so strong in education, to dull and low-level mediocrity, while the commonplace is dignified and teachers read often, not above but below their own mental level and think this progress. Thus, while the volume and quality of books and journals meant to appeal to teachers have greatly improved and increased, the rank and file of teachers still have a singular incapacity to distinguish what is first and fifth or even tenth rate material. If I grow a little skeptical about the possibilities of a really general culture, which was once the chief goal sought in education, I insist all the more upon the necessity of a broader basis for every kind of special training.

Our chief need to-day is for a great awakening bringing not one but many radical reforms in its train, such as a widened scope of curricula, a better trained, selected, inspired, and more inspiring teacher personnel, a great increment of resources, etc. But there is no present ground for hope for any such transformation of our system by revolution and we can only look to the slower processes of evolution in this country, for the following reasons. (1) The great metamorphic advances in the history of education have been due either to a felt need of propaganda, religious or political, or else of a greater industrial or military efficiency. The latter we are too secure and powerful to feel the need of and we lack the enthusiasm and strength of conviction for the former. (2) Another class of reforms has been

due to efforts to save a falling state, as in ancient Greece, or to restore one brought low by war, as in Germany after its devastation by Napoleon. We have no sense of decay or débâcle but quite the contrary, so that the salvage motive is lacking, while our country is not humiliated by war but has emerged from the last one more powerful and in some sense less docile than ever before. (3) Another group of reforms have sprung from compassion for the pitiful state of ignorance and a philanthropic desire to better fit the young for success in a world for which they need an ever more special training. The former has never been a very strong motive here save for promoting the general cause of education by stimulating the war upon illiteracy and by prompting certain private charities and individual efforts for social and economic amelioration. But the latter has inspired many large and small donors during the last decades to make bequests which have been beneficent, although some of them have not made for improvement of the system but only for multiplication and too often the duplication of preëxisting institutions.

Industrial education is everywhere more and more needful and the prostrate economies of Europe need it as never before. But a democracy should give foremost attention to training for citizenship. Thus because since the War there has been such a remarkable trend towards democracy, the need of education of the people, who now seem destined to rule themselves as never before, is incalculably increased, for at this critical juncture education has been crippled as never before in modern history since the Thirty Years' War. This form of government, if it is to be safe, is in greater need of popular education than any other form, while the disabilities which the war brought have greatly reduced the efficiency of the educational system of all these newer republics so

that in a sense they are stumbling, partially blinded, along the new and more arduous road. Thus in this reconstruction era, education has suddenly become of far greater importance for the future of the world than it ever was before.

If after reviewing my half century of educational interests and activities I have a valedictory word to present to the future leaders in this field, it would be the exhortation to believe that education (along with eugenics which, if it comes, will arrive much later) is now becoming the only way of salvation for the world and to rise to the higher standpoint that sees and measures everything according to its educational value and makes this the supreme criterion of every factor in our complex civilization.

Education has, thus, now become the chief problem of the world, its one holy cause. The nations that see this will survive and those that fail to do so will slowly perish. Knowledge must henceforth be the light and guide of mankind. More of it must be quarried from the original sources, nature and man. This, together with the choicest lessons of our past experience, must be ever more widely diffused and there must be absolute freedom of both research and teaching. There must be reëducation of the will and of the heart as well as of the intellect, and the ideals of service must supplant those of selfishness and greed. Nothing else can save us and I shall live, and hope to die when my time comes, convinced that this goal is not only not unattainable but that we are, on the whole, with however many and widespread regressions, making progress, surely if slowly and in the right directions.

CHAPTER II

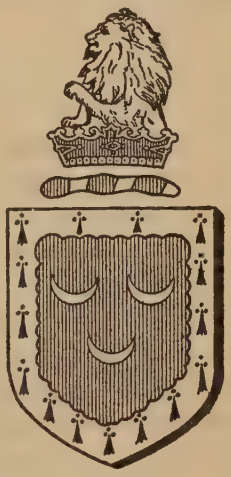
FORBEARS AND PARENTS

Pedigree: Vinings, Halls, Tillies, Searses, Bealses—Etymology of this name—The Mountain Miller—John Alden, Elder Brewster, and the Plymouth records—My mother's education—Her scheme of Bible study for children—Her method as a school teacher—Her religious diary and confessional—Its interpretation—The abatement of her pietism with later years—Her reading—My mother as a pioneer in child study—My father's ancestors—Characterization of his brothers and sisters—The old New England farms I knew best—Domestic industries in and out of doors—Traits of the Halls—My father's boyhood, education, and western life—His traits—A sample address of his—My attitude toward him and my mother—Albums—How my parents lived for their children—How I look back on them.

Several of my relatives have been for years interested in pedigrees and by dint of much correspondence and the study of many family books, and in a few cases with the aid of genealogical societies in this country and the College of Heraldry in England, have brought together much material, the gist of which has been embodied in a large notebook by my sister, Miss Julina O. Hall, and a few data from which I only very briefly recapitulate here.

On my mother's side, my great-grandmother was Abigail Alden, a direct descendant in the fifth generation of John Alden (*b.* 1599) of Plymouth fame. He was, of course, one of the signers of the *Mayflower* Compact. Thus I am one of the descendants in the eighth generation of John Alden and Priscilla. The name Alden has been transmitted in three successive contemporary generations of Bealses, and I have sometimes used the Alden coat of arms as a bookplate (see figure).

My grandmother on this side of the house was a Vining. This was a fruitful branch, a number of the families in the five generations we can trace being very large. The first Vining came from England to Weymouth in 1655 and appears to have reared ten children. His great-grandchild, George, reared eleven children.



G. STANLEY HALL.

The pedigree of Bealses (my mother's family) goes back to Samuel, of Pembroke, Massachusetts, of whose life we have no details. The name of his son, Jonathan, appears on the muster roll of Bridgewater in 1776. Then it was found that "he could repair gun-locks and he was taken out of the army and men were placed under him and he was kept at work in that line." His son, Joseph, was the Mountain Miller, whose life and traits are described later.

The name Beals has been the center of a great deal of discussion. Our ancestry can be traced directly to John Beale, who died in Kent County, England, in 1399, and this was about the period when patronymics began. Rev. Charles E. Beals, who has discussed the name in detail, thinks on philological grounds it goes back to the ancient Baal, meaning Lord, and connects it with Baal-fires and May-Day ceremonies. Other theories trace this name, with its very flexible spelling, back through the French *belle* to words that mean "to bellow," or a narrow pass between hills, in which latter case it evidently had a geographical origin. Or it may, etymologically, mean sharpness, as of a hatchet. From one form it would appear that men of this name came over

with William the Conqueror, and from another that the name goes back to the Druids.

On my father's side we trace the name Hall through nine generations to John Hall who at twenty-one came from Coventry, England, to Charlestown, Massachusetts, in 1630, in the fleet with Governor Winthrop. We can trace him to Barnstable and Yarmouth and Dennis when this latter was set off as a separate town in 1793. Josiah Hall, who lived on the old homestead in this latter town and was interested in genealogy, wrote in 1880, "The Halls have always occupied a position as good citizens, and I have never heard of any of them being guilty of a crime that would make any one who bore the name blush. The emigrant ancestor was a man of character though not much in office." He was said to have had twelve sons (no daughters) although we have the names of only ten of them and his will in 1694 mentions but eight. Our generation runs through his second son, John (*b.* 1637) and his second son, Joseph, father of nine children, and the next four generations are represented by Daniel, David, Reuben, and Thomas, who was my grandfather, although the traditions of my youth stop with David and his son Reuben, who, we were told in our childhood, was the captain of the vessel from which the tea was taken to make the Boston tea party. His sympathies were, however, with the insurgents and against his official duties, and so he was knocked down "very gently" when the raid was made. He later wandered west to Ashfield as a pioneer settler in 1780 although he had then spent only one summer on land since he was a small boy. Our tradition of him is that at first he knew so little of farming that when his beans came up he thought nature had made a mistake and carefully pulled them up and turned them over.

One of the ancestors of our branch of the Halls

was Elder William Brewster of whom Bradford's History has so much to say. In 1585 he was in the service of Mr. Davison, Secretary of State and Queen's ambassador to the Low Countries. When in token of submission the keys of Flushing were given over to the ambassador, he committed them to William Brewster, who kept them under his pillow. After Mr. Davison lost favor with the Queen because of disagreement over the Queen of Scots, Brewster went to the country to live. Here he was so active against the corruptions of the church that he was one of the seven kept longest in prison. After he went to Holland he taught English to "many great men's sons" and "drew rules to learn it by after the Latin manner" (Bradford). We are told that he had "many children," was noted for his "godlye living," his "personall abilities," and his habit of "undervallewing himself and overvallewing others." He died in 1644 on his farm adjoining that of Miles Standish. His daughter, Patience, came to this country later and married Thomas Prence (Prince), who, Bradford's History tells us, was twice elected governor of the colony. She died at the birth of her daughter, Sarah, in 1633. The latter married Jeremiah Howes. Then follow three generations of Howeses—Ebenezer, Thomas, and Sarah, who married Reuben Hall. Thus I am a descendant of Elder Brewster in the eighth generation.

John Tillie and his wife came over in the *Mayflower* but he died soon afterward. He, too, was one of the signers of the Compact. His daughter, Elizabeth, came to this country later and married John Howland in 1624. The latter had come over in the *Mayflower,* and Bradford describes him as a "lusty younge man" who fell overboard from the vessel in a storm, and "though he was something ill with it, yet lived many years after and became a profitable

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member both in church and commone wealthe." He died in 1672, leaving ten children, the oldest of whom married Capt. John Gorham. Their son, Joseph, married Mary Sturgis, whose daughter, Sarah, married Ebenezer Howes (above). In the sixth generation comes Horace, in the seventh Sarah, who was the mother of my grandfather, Thomas, who married Rachael Howes.

Ten generations take my ancestry back to James Gorham, born in England in 1550. The next three are represented by Ralph, John, and Joseph, and the latter's daughter, Sarah, married Thomas Howes, whose daughter Sarah bore my grandfather.

Another line goes back to Richard Sears, who died in Yarmouth in 1676. His son, "Captain" Paul, was born in 1637. He married Deborah Willard and died in 1707. He was one of the original proprietors of lands in Harwich and left his property of four hundren and sixty-seven pounds to his wife. The oldest monument in the original cemetery at Yarmouth is a stone slab which was removed from its place to make room for the granite monument of the Searses. Paul Sears, 2d, born in 1669, married Mercy Freeman, and their daughter, Deborah, seventh of twelve children (*b.* 1705) married Thomas Howes. Then comes Samuel, who married Mercy Mayo; then Seth, his son Thomas, and the father of my great-great-grandfather, David.

The above are all my forbears that we can trace. Reckoning back nine generations (two parents, four grandparents, eight great-grandparents, etc.) would give me, theoretically, in the ninth generation, 512 progenitors, all of whom would have contributed equally with those that can be traced as above to my psychophysic make-up. Of most of the rest nothing is known. They might have, of course, included criminals, wastrels, and degenerates of many kinds,

of most of whom I might have more reason to be ashamed than I have to be proud. On the other hand, some of them might have been famous—perhaps kings.

On the whole, the blood is more Saxon than Norman. Most of my ancestry was English with a slight admixture of Scotch and Irish. My parents, who cherished these traditions, made some effort, when we were small, to interest us in some of our forbears in the many volumed Plymouth records which came into our possession about 1855.

My Mother

My mother, Abigail Beals (*b.* August, 1816), the fourth child in a family of seven brothers and sisters, was the only one to seek a higher education than that afforded by the country schools, save her younger brother, Alden Porter Beals, who was graduated at Williams College in 1849. He was classmate and roommate of John Bascom, long a professor at that institution and later for years president of the University of Wisconsin. This uncle spent his life as a teacher and school principal in Troy and Stamford, Connecticut. Her oldest brother, Fordyce, was long a partner of Colt in the manufacture of firearms but retired at about the age of sixty with a modest competence. He had no children, and it was he who in part financed my first period of study in Germany. My uncle Robert was, during most of his life, an official in the Springfield armory. He died twenty years ago and is at this writing (1920) survived by his childless widow in the early nineties. The next brother, Vining, was a prosperous farmer and tradesman in Pittsfield. Her oldest sister, Vesta, married a Snell, who came of a family with a strongly pietistic and missionary spirit and tradition. One of her

daughters, Sarah, I remember as a very precise, beautiful, and cultivated young woman who married a clergyman, the Reverend Hiram Howard of Ashfield; while her sister, Martha, who was far more practical, married a western farmer and had a large family. My aunt Polly married Albert Dyer of Plainfield and bore three children. She was a woman of great vitality whose soul overflowed with good will and gladness—a woman, too, of fine physique who must have been something of a beauty in her youth. It is worthy of note that not only did no other of the children of my grandfather Robert Beals, save my mother and Uncle Porter, show any special interest in the higher education but that none save my mother was profoundly religious. In their mature life all were absorbed in secular pursuits, and some of them reacted in their maturity against the puritanical influence of their home by a certain very moderate "wildness" which was a great grief to their saintly father.

My mother was thus the youngest daughter in a family of seven, with two older sisters, and the letters of her father, a pious deacon, to her when she was away at school show a very close and heart-to-heart relation between them. She was evidently his favorite child and perhaps closer to his heart than was even his wife, a much more worldly woman and little in touch with the intensely religious life that pervaded the community. I barely remember her sitting in the chimney corner with an old lady's cap which she always wore, smoking a pipe, to the great mortification of her spouse. Thus the father-image which developed in my mother's mind up to the age of twenty-six, when she married, was very different from that which my father illustrated, as the traditions of his family involved far less chivalry toward women and very much less demonstrativeness of

affection. Thus my mother may have been somewhat disappointed and perhaps had to make difficult readjustments, for her husband certainly was not the idealization of the father whom she idolized. There may have been some unrealized hopes in her wedded life which led her to have recourse to a religion culminating in the love of the Heavenly Father and supplying what the marital relation did not fully afford. One element of her pietism seems, thus, to be a vent or a sublimation of the repressed affection for her own father in whom she had come to prize traits that were but little developed in her husband who, although both a moral and religious man and a church member, kept most of his piety for Sunday and to himself.

The Beals family tradition of piety went back to my great-grandfather, Joseph Beals, whose life was commemorated in a tract (No. 254) entitled, *The Mountain Miller,* which for many years had a very wide circulation.[1] This little memoir was not only the subject of some pride but was very precious to my mother's family as presenting a standard of Christian life to be striven towards. The subject of the sketch migrated westward from Bridgewater to Plainfield when he was twenty-seven and cleared land and built a home for his young family, when a fire destroyed his house and all that was in it, bringing to naught the result of ten years' labor and obliging him to face hard conditions. He had hitherto held entirely aloof from all church relationships, openly asserting that a sincerely moral life was sufficient for salvation. This calamity, which at first filled his heart with

[1] William A. Hallock, son of Moses Hallock immortalized by Charles Dudley Warner, also a native of Plainfield, who in his boyhood went to school to my mother, was one of the famous "haystack" (Williamstown) founders of the American Board of Foreign Missions. In competition for a prize of fifty dollars offered by the American Tract Society he wrote the *Mountain Miller,* of which 140,000 and soon afterward 170,000 copies more were in circulation.

bitterness and resentment toward Providence, finally brought about his conversion. He came to see that this affliction was a needed chastening by the Lord, that he had been proud and particularly prone to impatience with his lot, and now he became a very humble, devoted Christian according to the conceptions of his day. He was always at church and prayer meeting, instituted family prayers, labored for years to convert his wife, who long held out, watching for and reproaching every sign of failure and irritability in her husband and, when they appeared, taunting him with not living up to his new ideals. But at last she yielded and experienced a great change, could hardly atone sufficiently for her criticisms of her husband, and she, and later their children, joined the church. So ecstatic did Joseph Beals become at times that when his oldest and best-beloved daughter died in the later teens he declared at the funeral with his hand on the coffin, that this was "the happiest day" of his life because he felt the love of God so shed abroad in his heart. He went on to describe his close walk with God and exhorted sinners present to repent because for them, as for his daughter, death was ever present. He prayed whenever the spirit came upon him—in the fields, forest, and by the spring, which has been commemorated; and when he bought his grist-mill he made it a rule to give some word of religious admonition to all his customers. He died at the age of sixty-one, and his wife followed him the next day with the same fever.[2]

The well-laid deep stone wall of perhaps twenty feet, which constituted the foundations of this mill, is still standing, although the original mill has been replaced by a more modern structure. By the roadside, near the mill, under a group of sugar maples

[2] In the ledger of the estate of Deacon Beals is found the following entry: July 22, 1 coffin—12 shillings; July 24, 1 coffin—12 shillings.

is the perennial spring where the miller used to drink. On these and adjacent trees are carved the names of many visitors, for the romantic scenery here has been the cause of many visits. William Cullen Bryant, born four miles away in the town of Cummington, to whom my mother once went to school, used to come here often and spend a day in communion with nature. The old toll measure which Mr. Beals once used is now a precious relic to the 10,000 people by the name of Beals in the United States.

Reverting now to my mother, of intense and unique interest to me was a full and closely written "composition book" of themes composed by her before she left home at the age of sixteen. Of the existence of this book I had never heard until two years ago. These effusions are also significant as affording glimpses of the higher education of girls in the '30's of the last century. The topics were all assigned, with no thought of trusting to the initiative of the pupil —Autobiography of a Cherry Tree, Where I Would Like to Dwell, Improprieties in Common Conversation, Practice Makes Perfect, Memory, Broken Resolutions, Indolence, Perseverance, A Tale of Wild Adventure, A Young Lady Who Neglected to Improve Her Mind, Deception, etc. There are also paraphrases of poems and Bible stories, imaginary journeys, and letters to fancied relatives. In them all there is not a single allusion to literature, save in the paraphrases, and there is no indication of any other effort to acquaint the student with English masterpieces. There is, however, an exquisite love of nature afield and a keen sensitiveness to landscapes, hills, trees, forests, brooks, and flowers. Much of the attention seems to be focused on sentence building, but the outstanding feature of all these essaylets is their very copious and highly Latinized vocabulary. That a girl of this age should have so many sonorous

and even mellifluous words at her command and treat them so caressingly, almost as if her idea of style consisted in saying simple things in an elaborate way, is, I fancy, due as much to the very nature of this age as to nurture. If there is any affectation about it, it was doubtless cultivated by the ideals and methods of female education in vogue in that day.

My own writings have often been criticized for the use of unusual and perhaps technical terms where others would do, and if this is true I wonder whether inheritance or the training my mother gave me has anything to do with it. I have increasingly felt in my educational studies that the vocabulary of the boy and girl of to-day is lamentably narrow and especially deficient in words describing their feelings or ideas. Presentative terms and descriptions of objects of sense are well taught and learned, but the psychic processes are inarticulate in modern youth. But in these compositions the descriptions of sentiment play a prominent rôle.

The catalogue of the "Plainfield Ladies' School" (Sarah Mack, principal) where these compositions were written shows fifty-eight other pupils from this and neighboring towns. From here my mother went to the "Albany Female Academy," after applying for admission to the newly opened Mount Holyoke Seminary,[3] at which she was told there was no room.

[3] Mary Lyon, the founder of Mount Holyoke Female Seminary, was born and reared in the town of Buckland adjoining Ashfield. Her birthplace and the large rock, where she is said to have conceived her plans for the higher education of young women, are often visited with reverence by those interested in the institution she founded. She was a cousin of my grandfather, whom I have often heard talk of her masculine way of soliciting funds from farmers of the region; she used to follow them into the hayfield, put her foot on the spoke of the cartwheel, and refuse to allow the work of gathering hay to go on until she had been promised the proceeds of at least one load. She also would requisition a certain number of fleeces of wool, or goose feathers enough to fill a feather bed or at least a pillow, till her appearance on the scene was regarded as ominous by the farmers of the countryside far and near. She made a similar canvass later for students, importuning several of my aunts, who were then girls, to enter

Here she took, for a year, the studies of the "first" or highest department, which according to the catalogue included the following subjects: Moral Philosophy, Kames's *Elements of Criticism,* Algebra, Botany, Technology, Intellectual Philosophy, Coate's *Physiology,* Paley's *Natural Theology,* Geometry, The Constitution of the United States, Exercises in Chemistry, Geology, Trigonometry, and Butler's *Analogy.* There is no mention in the rather elaborate pamphlet commemorating the thirtieth anniversary of this institution in 1833 of any foreign language, ancient or modern, and yet this school, we are told, afforded the most advanced education for girls at that time in this country. Of just what was done in the above branches of the highest form by my mother we have no knowledge except that I find a manuscript-pamphlet very carefully prepared by her which consisted of a rather detailed analysis of the bulky and really learned treatise of Lord Kames, mentioned above. Whether she took all these other studies I doubt, but do not know.

In a closely written large-paged notebook of some fifty pages, begun in 1841 and continued for about a year, my mother noted the Sunday school work with her infant class and the lessons which she worked out according to an original plan of her own. She first took up the Commandments, one by one, with very concrete illustrations from child life to teach the goodness of God; the love and respect due to parents; the duty of kindness—how those who hate, get angry, fight, scratch or bite are potential murderers; the necessity of obedience to parents, prompt, willing, and constant even though the parents are absent; belief in God's existence, although like the wind He

her school. One of them, with a promise of free tuition in consideration of my grandfather's gifts in kind, prepared to do so but for some reason her plans failed.

cannot be seen; belief in His omnipresence and sustaining power. She made the children feel their pulses and respiration in order to realize that God keeps them alive while they are asleep as well as awake, that He gives them their several senses, feet, hands, etc. This was accompanied by considerable review work and memorization, so that in the end they must have had some idea of their duties to God, their parents, their teachers, and each other. The lessons then proceeded to the stories of Jesus, who came a forlorn stranger to this earth to save souls; of Paul, and especially of how the Lord freed him from prison and the jailer believed. Then came the stories of Joseph, Abraham, of our first parents, Adam and Eve. The lessons later alternated from the themes of the New to the Old Testament—David and Goliath, Jairus' daughter, Judas' betrayal of Jesus, the miracle of the draught of fishes, the cure of Naaman's leprosy, Job, and Elisha.

In all these themes a practical lesson was brought home at the close that was well within the sphere of children's interests and which, I think, must have had a direct influence for good upon their daily lives. As a student of education I honestly believe that this general plan of work, and perhaps even more particularly the copious details and illustrations by which it was wrought out, would compare in effectiveness very favorably with our best modern Sunday school courses. Always the chief stress is laid upon duty, and especially a spirit of kindness and love. Each lesson seems to have been planned in advance with a great deal of care, and there are incessant questions indicating that throughout the children themselves took an active part. This course seems to have been continuous through more than one year, and also to have been gone over with rather free variations several times during my mother's experience as a Sunday

school teacher. She taught infant classes in the Sunday school for years after her marriage and when we were young, though of this I find no written record and have little recollection.

In a small bound blank book, dated 1842, before her marriage, my mother has left a daily record of a four-months country school where she taught thirty pupils. At the close of each day she recorded very briefly the conduct of the school as a whole and of individual pupils, especially of those who had excelled in studiousness or in good behavior. Little faults of inattention, gum-chewing, whispering, tardiness, playing, etc., are noted, the chief reference being throughout to the conduct as pleasing or displeasing to the teacher. This she seemed to make the highest criterion. Perhaps of all the virtues that are implied that of kindness, so often mentioned, takes first rank. This day-book would not perhaps be worthy of mention save for the fact that it is a written record of each day to be read on the following morning for the encouragement and admonition of the school. The method may have been used elsewhere but I have never heard of it. It was very evident that she strove here to get into close personal rapport with individual pupils and also to attach them to her. My mother also taught one or two other single-term district country schools before her marriage, but of none of these can I find any record. It is, however, significant to note that some of these former pupils of hers remained her steadfast friends through life and with some of them correspondence was continued for years.

Until about two years ago, when they were shown to me and finally given me by my sister, to whom they had been committed hesitatingly, I knew nothing of the religious diaries of my mother, and my sister seemed to feel a little as though she were violating a sacred confidence even to let me know of their ex-

istence. These jottings throw a flood of light upon my mother's inner life and character. My father, we believe, knew nothing of them; nor did my sister till just before my mother's death. They extend from October 13, 1850 to March 31, 1861, these dates rather nearly coinciding with our life in the town of Worthington and with the early years of schooling for us three children. In these notes there is, however, almost no mention of her children or her husband, but their sole purpose seems to be a study of how to get nearer to the All-Father and to grow in Christian graces. This saintly woman, whom I never knew under the greatest stress to show a single symptom of anger or even impatience with three children at a trying age about her, living on a farm one third of a mile from the nearest neighbor, with social relations mainly through the church and relatives some miles away, here writes in the most feeling, personal way of the spirit struggling with the flesh, of her devout gratitude that merited judgments of Heaven upon her are withheld, and her fears that she may sometime be a castaway, etc. There can surely be no phrase making, conventionality, or affectation here. All this was written with no thought that any eye save her own would ever see these records of aspiration or sacred communion with self and with God. Not a few of these notes consist of prayers, most of them so fervid that to read them now for the first time touches my heart in ways I cannot express. Some of these entries I insert herewith exactly as they stand.

Oct. 13, 1850. Sabbath. I sometimes get such a glimpse of God's perfect character—so good, so wise and just, that I rejoice to be under His government and feel that I could bear whatever He should see fit to lay upon me with cheerfulness and more—with pleasure—, assured of His kindness even in adversity. Yet often is my faith

weak and the cares and perplexities of life trouble me, and I forget to cast all my care on God with the assurance that He careth for me. Precious promise and encouragement to those under trial, may I ever feel its influence in producing peace of mind amid every vexation.

March 16, 1852. O, that I might so realize the hand of God in every perplexity that I may be even happy under trial, assured that God permits it and designs it for good. I deserve severe chastenings for my want of faith and murmurings, for my neglect of closet duties. The closet bears testimony of my estrangedness from God. And when I review the brief record of my experience in religion I find but little evidence that I love or have been beloved by Him "whose favor is life." If I love, why am I thus?

June 24, 1853. This is my birthday and what reflections arise? What advances have I made? What resolutions have I carried into practice which tend to holiness and conformity to Christ's image? What account for the privileges of the past year? What return for mercies past and present? While my pen records the loving kindness of my God which has attended me through the whole year my heart would exercise increasing gratitude that judgments are still withheld, deserving as I surely am of the severest frowns. May I so be led by the cords of Divine love in the path of obedience that the rod to drive me to duty may yet be spared.

Sept. 18, 1853. I sometimes feel burdened with care and think that with less, and consequently more time for self-communing, for the cultivation of the heart and intellect, I could serve God better and enjoy His service more. But I would put away all such desires and remember God's providence places me just here and that I am accountable for the faithful discharge of present duties, and spend no further thought in regrets that I have not greater privileges but seek to improve the present and be grateful that they do so abound—infinitely beyond my desert. God places me just here! He will require of me a strict account. I would ever bear this solemn truth in mind.

Sunday, Jan. 1, 1854. Sixteen years ago this day I publicly dedicated myself to God, and it now becomes me to inquire how I have served Him. Have I engaged in it heartily and with delight? Have I honored my profession by exhibition of a Christian deportment at all times? in the family as a wife and mother? in intercourse with friends? in the sanctuary and Sabbath schools? Have I been patient and forbearing when rebuked for impropriety and neglect of duty? Have I always given the "soft answer?" O, I would ever seek to put down that self-justifying spirit which I find rising at times and stand condemned before the Great searcher of hearts and plead for mercy and forgiveness. On the ground of merit I have nothing to ask—"Mercy is all my plea."

Fast-Day, April 6, 1854. I have nothing to record but the spirit struggled with the flesh so earthward bound.

June 25, 1854. Yesterday was my birthday and cares and business pursuits hindered me from making a record of my reflections after the lapse of another year of my life's little span. When I now take a retrospect, I see it has abounded in goodness and mercy, and the question may well arise, why am I so favored? Gratitude should be an absorbing emotion with me at the present time in view of the multiplied blessings which have attended me for 38 years. The rich profusion of favors so plentifully showered upon me during all these years is highly suggestive of God's love and great forbearance. O, for the kind Spirit's influences to enable me to love always and even to find it sweet to lie passive in His hands and know no will but His. May my confidence in God ever abound. If spared through the new year now begun, may I be enabled to make a better record of my spiritual attainments. May the presence of Jesus go with me continually, cheering, comforting, and enabling me to image forth His life in my own.

Sunday, Feb. 4, 1855. For the five past weeks I have been called to note the special mercies of my God. Tho

increasing cares necessarily rest on me in the absence of my husband during these weeks and still continue, its effect on my mind and heart has been to give me a more abiding sense of dependence on my Almighty friend for the mercies of each moment. They have been multiplied every morning and even every moment, and I have had increasing cause for gratitude. However crosses may thicken and trials multiply and vex my soul in future life, may my heart ever beat responsive to the truth, the blessed truth, that *God is good.* I would ever love His whole character, love Him for what He is, as well as for what He has done for me. O, Lord, make my heart thine own, and prepare me for all Thy will respecting me.

Sunday, April 15, 1855. How I long for more leisure, more quiet and rest from these constant and distracting cares! But with all my intense desire for the greater religious privileges which such leisure would afford, the question arises, Should I indeed serve God more acceptably than I might now if I cultivated a patient and Christian spirit, while engaged in the thousand duties which, each day, seem to engross my whole time. How little of the Christian is exhibited in my daily life! How much of conformity to the world! O, I would not have it so, and yet I do, and live on, at a poor dying rate. My love to God is faint and feeble, if at all existent. I call myself a Christian, and wherefore? In what am I different from those who make no profession? Ah, in what? No observer can tell, and yet I hope and cherish the hope, more from the evidence which past experience gives me than any present emotion. O Lord, I desire to live so that each day shall furnish myself evidence that I am Thine. And may every act, thought, and emotion arise from love to Thee. O grant me Divine aid, I beseech Thee, else I injure Thy cause by my unchristian influence and be myself a castaway. Help, or I perish! I cast myself anew upon Thy mercy in Christ as my only hope. I would seek for relief from no other source. Let me not seek in vain. Let me find it sweet to be governed entirely by Thee in all things. My soul would utter the sentiment of the poet, "O for a

closer walk with God," etc. *I would be an earnest, fearless Christian at all times and in all places while life is continued.*

June 24, 1855. Sabbath. My birthday! Conflicting emotions arise as I review the past year and my past life. The mercies of the past year have abounded, and a measure of gratitude arises. A hope of salvation I still cherish (through grace) but what are the advances in piety I have made? Seventeen years a professor of religion and what have I done to show my attachment to Christ and His cause? By what right do I hope? The right of a humble sinner ready to perish and hear Jesus say, "Whosoever will, let him come and take of the waters of life freely." I would come and anew accept with my whole heart the gracious invitation and find Him whom my soul loveth and rest in the assurance of His love and delight myself in Him always.

July 29th. A year since a brother was snatched away by death, all suddenly and unexpected to him and us. We know God has done right and would still rest in the assurance of His love—without a murmur. Let my great effort be to prepare for a summons as sudden. It sometimes seems to me that a true child of God *can* have no trouble, under the government of One who cannot err. O, I would ever learn to trust in God always. When providences are dark, I would patiently wait for their unfolding in God's own time, remembering the assurance that "what we know not now we shall know hereafter." Let me ever confide in the wisdom of God.

May 17, '57. I desire this solemn responsibility resting on me may be felt and have its weight of influence in producing correct emotions of heart which shall manifest themselves in corresponding actions and general deportment.

July 26, '57. The power and extent of individual influence has been a theme of frequent meditation of late,

and how fearful the thought that I may have already set in motion influences for evil which are to have a widening range through all time. With what prayerful carefulness should I order my speech, my every tone of voice, all the particulars of manner which go to make up the general deportment. I have regarded this matter far too little. I am a mother, and what is my influence on my children on whose young hearts are made ineffaceable impressions which have a bearing on their character through time, and also their future destiny? It is a solemn inquiry and awakens sad reflections. I would this day be stimulated anew to greater watchfulness on this point that in all things my mite of influence may tell for good on my children to the remotest generation.

March 31, 1861. Sabbath—alone. The very annoyances of which we most complain may be designed as fertilizers to the growth of the graces we most lack. Let me make a proper application of them that if it so be, I may attain that spiritual growth which God designs and desires to see in His children.

These musings of my mother, the majority of them written Sundays, can only in part be explained by social heredity or by the influence of her sainted father and loyalty to his memory. He died about the time of her marriage and in her teens and early twenties she was in the very closest rapport with him. The fluctuations between implicit confidence in God and love of Jesus and a feeling of alienation and unworthiness were also in part due to her imperfect health. Some of the sense of inadequacy was no doubt really caused by excessive domestic duties, for she was cook and washerwoman for the family, mended and made about all the clothing for us three children, and otherwise practiced the strictest economies, for we rarely had indoor help. In the haying season an additional man or two in the field, which increased the housework, were necessary. Thus,

these religious experiences measured also in part the fluctuations of euphoria, and with these she must have found it hard to keep the poise and uniformity of deportment which was her ideal, and lapses from this ideal affected her religious consciousness. This to her meant the abiding conviction that all that is is for the best, so that if anything caused her to repine it was lack of faith in Providence. Many of her expressions are almost paraphrases of the Stoic model, "Accept the inevitable with joy," as her grandfather found joy even in the death of his dearest daughter. This is easiest when we are at the top of our condition, and it was really this for which she strove. When we are at our best God seems good and near, and if we are in low condition His face is clouded.

Faith was to her not a matter of creed; nor did the doubt she speaks of have anything to do with doctrine. Belief meant simply the presence, and doubt the absence of the feeling that all God's dealings with us are for our good. Our paramount duty as Christians is to see and realize this whatever happens. Submission is indispensable, but this is not enough; we must justify all God's ways. To fulfill this great and often impossible task she sometimes felt herself quite incompetent, and when she had to have recourse to faith and Bible promises she found this not entirely effective. It was all with her a very personal problem and her own relations to God took precedence over every other matter, not selfishly but because she felt this to be the indispensable condition of being able to do her full duty to others.

Of all things in this world she most craved love or the intimate, sympathetic relation she had so long enjoyed with her father. I think she had an almost morbid dread of conflict of any kind. She could not endure antagonism or criticism, and seems to have

had nothing less than a passion for getting and keeping in amicable relations with every acquaintance. She so dreaded to differ even in opinion with others that she often seemed to acquiesce in things that in fact she strongly disapproved of. She was distressed if we children quarreled as, alas! we often did. One of her chief anxieties was my father's harsh censure and occasional punishment of us children. As we grew up and the disagreements of us boys, especially of myself, with my father increased, she suffered growing distress of mind, and it was her mediation as a peacemaker, as we grew older, that often averted more open and perhaps final ruptures of family ties. Indeed, I think anxiety on this point during the later years of our home-staying was the greatest of all her afflictions and that when we were at last in college—and that, too, with the final and hearty, though long reluctant, approval of my father—a great and new peace settled upon her mind.

Another source of her distress was lest I, the eldest, should bully my brother and tease my sensitive sister, which I now see I was almost brutally prone to do. My brother was light-haired and belonged to her side of the house and was named for her father, Robert Beals. She always took his part, which only increased my predisposition to heckle him. Although a year and a half younger, he was my equal, if not my superior, in standing in school and even outranked me in college, although in a class two years later. As a child, too, I thought him a tattler to his mother. Once, when he inadvertently uttered a bad word ("darn it") I held the threat of telling our parents over him for months and, I fear, years, as a club to compel him to do my bidding. When he was seven, we quite inadvertently collided on the ice and he fell and broke his nose, and I think I never entirely escaped the suspicion that I had pushed him over.

When I was away in Ashfield, as I often was for entire school terms, with my grandfather Hall or with my uncles and aunts on that side of the house, and also when my father was absent in the legislature, I have no doubt that it was a great relief to my mother's soul, much as she loved us all. Perhaps she felt that she should have prevented all our bickerings if her heart was full enough of love and reproached herself that harmony did not always reign; and perhaps the cause of these self-reproaches was thus so personal that she not only did not entrust it to her private diary but did not even bring herself to fully realize just where the actual trouble lay, for this would seem to put the blame on us which her instincts inclined her to take over entirely upon herself. Perhaps she was so enamored of amity that my then too belligerent disposition seemed to her a standing indictment of herself, because neither the heredity which she transmitted nor the training she had given made me anywhere nearly realize her ideal, so that my nature may have made her feel that the quality of her parenthood or her nurture was defective. If she had borne and reared a more amiable child she might have had less cause for religious discontent.

But I would fain believe that yet another factor entered into these introspective meditations, namely, an impulse to keep on growing through adult years, an urge that resists arrest and stagnation, the eternal discontent that revolts at settling complacently into a dull routine of daily duties. This longing for a larger, fuller life found expression in the only channels which her teaching and environment left open to her, namely, in the development of ever more of the Christian graces. This she conceived as the higher vocation of man. Her very love of peace made her almost masochistic to divine influences. Thus she secretly cherished the very highest of all aspirations

and a horror of inferiority, and a hungering for perfection which pointed unswervingly straight toward the goal of human destiny as she conceived it. To be and do more in the service of the Great Master was her all-absorbing passion, and her dread of mediocrity here was her excelsior ambition. Only as she neared the age of fifty did these records cease. About that time more competence came from the bequest of a brother, her children were entering upon their careers and were away from home most of the time, and so it was only then that she began to relax from such exactions and slowly settle to more complacency with herself.

She had always found time to read much to us, not only from the *Springfield Republican,* our chief newspaper, but from generally well-chosen books from the town library. I remember particularly *Uncle Tom's Cabin,* several of the stories of Scott and Dickens, some of Shakespeare, *The Spectator,* etc. These she read not only evenings but often during the noon hours, even in the busiest season of haying. But later, after we left home, she indulged much in reading to herself, and I find two lists of books that she had finished which represent what she had been over in a winter or a year, and, strange to say, among these I do not note a single religious work, indicating that with senescence the storm and stress of her maturer life remitted.

There is another daily diary, from November 21 to December 25, 1853, devoted entirely to family happenings, which gives a very concrete glimpse of our home life. It abundantly illustrates how fond my mother was of visits, usually a whole afternoon and early evening spent with friends, and how she loved to invite usually more than one family of neighbors at once to some kind of entertainment at our home. She greatly enjoyed the week when the teacher

boarded with us, especially one of them—Forsyth Richards—who had once gone to school to her. Almost every day there is a comment upon the conduct and deportment of the children, always with the earnest expression that we might improve.

Throughout her life my mother was very fond of copying favorite passages, poems, and hymns from very diverse sources. She rarely made epitomes of her reading but altogether the scribblings of this sort are very voluminous, those in her early years before marriage being far more exclusively religious and those in later life with a greater and growing predominance of secular literature. In some of these booklets are proverbs and even witticisms, and on several occasions she attempted poetry—though not, I fear, with very great success. Soon after I was born she began a memorandum of which I was the chief theme. It was continued at intervals for years and came to embrace the other children. It recorded not only our cute sayings but many things which were thought to indicate future characteristics, with not infrequent expressions of hopes and fears for our future and notes of our distempers. This life-and-health book, unfortunately, although it was known to me all through my home-staying life and long after, cannot now be found. If it could it would surely be of the greatest interest to me now, and it might prove to be one of the first efforts in child-study, to which I have given so much attention.

In a commonplace book begun in 1873 and continued for apparently many years we have a record of important happenings; visits given and received, of which there are many; church and other social activities; family events; anniversaries, etc., and interspersed throughout all, many titles of books which my mother had read and also choice quotations from them, together with notes of information about many

popular authors of her day. In striking contrast with the earlier diaries, we have nothing of her religious life here save occasional statements about church-going and sermons. The picture here shown is of a complacent, not over strong woman in comfortable health, gratifying in rather full measure her taste for reading. The second no less strong impression is the unusually active social life. These notes, reinforced by my own memories, show that although isolated, not very many days passed in which visits were not given or received and that it was very customary for people, in turn, to invite a number of their neighbors to visit them at once. At these gatherings a bountiful repast was an important factor. News and gossip were exchanged, and the men often indulged in long discussions about public affairs. Political and sometimes religious opinions, often very diverse, were very freely aired. From my personal memory of these occasions I can realize that there is a very significant sense in which psychology begins in gossip because the latter so largely concerns itself with intimate personal events and discussions of motives and character.

My Father

My father, Granville Bascom Hall (*b.* Feb. 2, 1812), was the fourth of ten children, nine of whom lived to a good old age. I have a group photograph of seven of them when the youngest was seventy. His mother had a taste for romantic names for her children, among whom were Clarissa and Clarinda (twins), Viletta, Orville, and Granville. Of my father's nearest relatives I saw and knew far more than of my mother's, for I lived much with my grandfather Hall and the Hall uncles and aunts in Ashfield even before my parents moved there from Worthington, fourteen miles away.

A few characteristics of my Hall uncles and aunts may be in point here. The oldest of them, Alvin, after being three times a widower and living in several towns closely adjacent, came back to the old place to spend his declining years, where he lived to be within a few months of one hundred years of age. He was a man of great physical stalwartness and also of great endurance, was proud of his power to work well on in senescence, was always jolly and easy-going, and the only member of his family who formed the habit of smoking. He never had children save one son who was rather feeble and died in his early twenties.

One of my aunts, Viletta, who was very fleshy, also jolly and good-natured, married the son of a neighbor next door, where she spent almost her entire life. She bore two but reared only one very capable and efficient daughter. She was the comedian of the family, always saying the drollest and most original things, and had a most contagious laugh.

One aunt, Lydia, was the handsomest and by far and away the most intellectual of them all. She never attended schools outside the town but for nearly thirty years often taught in Ashfield and in most of the adjacent towns. She was a member of the school committee, wrote the history of the town, and contributed poetry for occasions and for the county paper. A very clever botanist, she knew the name of everything that grew in the vicinity, looked it all up in her three or four well-thumbed botanies, and had a very extensive herbarium, of which I remember there were over a hundred species of ferns. She had a good mathematical head (she used to drill me unmercifully evenings in algebra and in difficult problems of cube root in Adams' advanced arithmetic). She married late in life a former schoolmate and neighbor, Seth Miles, who had gone west and acquired

a modest competence. Their courtship at an advanced age was a theme of great interest to the entire community but they lived happily together for ten years and she survived him, living to the ripe age of ninety-six. She and one of her sisters for some time alternated from school teaching to work in the mills at Lowell when these industrial establishments depended entirely for labor upon farmers' daughters. They made a distinct effort to inspire a high morale in their employees, who published the famous "Lowell Offering" of which so much has been written and to which this aunt was a contributor.

Another aunt, Clarinda, seems to have been of a different fiber, with very few developed intellectual interests but rather priding herself on her record of how many runs of yarn she could spin in a day, how many yards of frocking or rag carpet she could weave, etc. She had a great propensity, which she often indulged although under the protest of my grandfather and uncles, for working in the field—milking, harnessing the horse, etc.

Still another aunt, Clarissa, also unmarried, was a person of a good deal of native mentality. The deacons appealed to her as one of the best judges of preaching and the quality of sermons. She was the only member of this family who had a passion for church going, Sunday school teaching, etc., but her interests in this realm were more social and intellectual than spiritual. She, too, refused several offers of marriage, taught local schools until after she was sixty, and died when over eighty years of age. She was the most rapid knitter, palm-leaf hat braider, weaver, spinner, etc., I can imagine. She always seemed to be intent on unloading superfluous nervous energy. She had a keen sense of humor and her black eyes would snap as she braided at the rate of once around the crown of a palm-leaf hat per minute and

spelled, to the intense delight of the children, "the abominable bumble-bee with his head cut off"—all, too, with the greatest rapidity.

My bachelor uncle, Orville, was so stalwart physically in his youth and achieved such prowess as a wrestler and performer of athletic stunts that he was strongly urged to join a distant relative, who conducted a traveling circus, as a performer. But this offer horrified the family and he declined it. Soon after reaching his majority he migrated a good mile from the ancestral home and bought a large farm with an immense house, where he spent his life and died at the age of eighty-one. He was rather sagacious in the conduct of his affairs and in that community was regarded as "well off." He had a fondness for fast horses, was very clever in mental arithmetic, and was for many years selectman and a member of the school committee. But during all his life he never rode on the cars or was farther from home than he could drive in a day with his horses. He probably knew every road in his and all the adjoining towns, of which he had well-conned maps and histories, so that he presents a striking case of a man of intelligence who instead of being interested in politics or in any larger questions focused on his own immediate environment. He was extremely fond of children, often taking loads of them on long rides, and offered prizes in the schools. He was a man of many stories and an inveterate teaser. I, for instance, was the cleverest boy he knew because no one else was ever able to shirk work on his farm. When he met my wife his first greeting to her was, "I had no idea Stanley would ever get so good-looking a wife, and if you had come to me beforehand I could have told you better." My ambitions he characterized as trying to get a living without work. When I was at the Johns Hopkins he took me apart once into the horse-

GRANDFATHER

FATHER

MOTHER

G. S. H. AT 6

Allen Orville Lydia
Clarissa Granville Viletta Alvin

HALL UNCLES AND AUNTS; THE YOUNGEST, ÆT. 72

shed to ask if I was really and truly a professor and earning enough to live and support a family in that way. Like the rest of my relatives, he would never attend a meeting in town at which I was to appear and speak lest he should be thought to be proud of his nephew, and he used to tell me that those who did go merely went out of curiosity to see if I really had any brains. But withal he was very kindly and favored me in many ways, and occasionally when I was in college would spontaneously send me small sums of money, generally saying that he knew I would spend it foolishly.

In the winter it was his custom, up to near the end of his life, to invite in all the neighbors interested to evening "sings." He had a big melodeon with many stops in the middle of the room, flanked by a double bass viol which he played himself, a 'cello and two violins which were played if any one was able. He was chorister and brought out an armful of church and other songbooks in duplicate and distributed them. They first sang staid church tunes which he selected, then *Moody and Sankey,* then darky and comic songs.

It was at these performances that another uncle, Allen, was generally called on to sing old ballads which his mother had taught him, such as *Lord Lovel* and *The Mistletoe Bough.* This I have heard him do at the age of seventy, with his voice cracked and his feelings always so stirred that his trembling voice and tear-filled eyes made every one else forget the ridiculousness of it as a performance in the pathos of the theme. His version of the former ballad, which had come down by hearsay for several generations, I copied for Professor Childs of Harvard, who was greatly interested and embodied some of its stanzas in his monumental *English Ballads.*

This uncle, the youngest, married early and had

a large and sturdy family and there are now many grandchildren. As a boy I never "got on" with him, and I shall never forget how, when I was perhaps a dozen years old, he hit me severely with an ox whip one day for impudence. This I never got over, and to tell the truth I always hated him. He had a quick temper, although he was generally pleasant enough to me. He was one of the leaders in the innumerable practical jokes which he took delight in playing upon me. Indeed, I was excessively teased by all my uncles and aunts, and was thought to be very good-natured because I almost never resented it unless it involved some physical pain and injury, as some of these pranks did.

Grandfather Hall was a man of stocky frame and sturdy constitution who never had an illness that necessitated a doctor until the typhoid fever which took him off in his early eighties, when I was in college. I remember him as a hard-working farmer, always wearing over everything else, save in the heat of summer, a heavy flannel frock with pockets, buttoned at neck and sleeves, coming to his knees, with flaps like a shirt. This was made of homespun blue-and-white woolen. He always conducted family prayers in the morning, immediately after breakfast, and generally in the evening. On Sundays his second wife, a diminutive lady whom we called Aunt Lois, always braided long locks of his hair up over his bald crown, forming thus an effective thatch, the end of the braid coming down nearly to his eyebrows. He always went to church and preferred walking the two miles back and forth to driving a horse, which he generally left for his children to do, for he was far more used to oxen, of which he was fond, always having several yoke of them.

David Hall, one of the nineteen children of Daniel Hall of Dennis, Massachusetts, came to Ashfield

about 1780 with his son Reuben (my great-grandfather) and built a small house by a brook near the road, and later a larger one of two stories on the other side of the road, which was afterwards moved to another location. It was from this that my grandfather Thomas migrated half a mile and built another house, purchasing a farm of twenty acres when he married at the age of twenty-one. But later he owned all the original Hall estate and several others near it —two or three hundred acres in all. Thus on this place seven generations of Halls have now lived. A few years ago most of the land passed into other hands, to my great regret, although I was able to purchase about a hundred and thirty-five acres, most of which at one time belonged to it and with which I have at this writing just reluctantly parted. It was on this farm that I was born and spent many months each year before and in the earliest teens, doing all kinds of farm work of which a boy of my age was capable and always attending school whenever there was one within reach. My grandfather's large farm was rocky, hard to work, and much better adapted to grazing than to crops or even mow land. The pasture hills here were said, in the time of the first settlers, to have been covered with the choicest kind of white clover fertilized by the lime washed by rain from the rocks for generations, but even in my boyhood years of grazing had stunted the grass crop so that it was very hard for even close-nibbling sheep, with which some of the pastures were overstocked, to keep in good condition. The arable land was particularly hard to work.

Here almost every kind of home industry was carried on, both without and within doors. Flax was raised, cut, broken on the "break" so that the "shives" could be removed by "hatcheling"; then it was "hanked," spun, and woven to make scratchy tow

shirts and other crude linen productions. Wool was transformed into garments, every step of the process from sheep washing and shearing to dyeing, spinning, weaving, and tailoring, done at home save carding alone, for which the wool was taken to a shop in town, to be returned in neat long white "rolls" ready to spin. Nearly everything the family needed was produced on the farm or within doors, and the few things needed from the store were for years paid for by my aunts by braiding large sheafs of palm leaf into hats. The raw material was "given out" at the store, as knitting often was.

On this place there were three large barns with sheds and other annexes, with provisions for cattle, sheep, horses, pigs, and poultry. There was a large sugar camp of, I think, about six hundred trees from which in a good season sometimes several thousand pounds of maple sugar were made, supplying all home needs and leaving a surplus for sale. For new structures the logs were cut on the place and taken, usually on sleds in the winter across a large pond, to the saw mill to be made into boards and beams. The distance was nearly two miles and with slow-moving oxen but two trips could be made in a day. I often drove one of these teams. Lumber, especially chestnut, beech, and pine, was often sold.

On a good hay day, when there were hired men, I well remember the impressive spectacle of six, sometimes seven, men all starting off in the early morning around a new "piece" of mow lot, swinging their scythes in unison, each three clips behind the one who went before. They kept up a uniform rhythm for hours until nearly noon, when, if the ground were smooth and the size of the "piece" surrounded were rightly chosen, the work should be done. The leader of this phalanx, who set the pace for the rate of the clips, the depth of new grass cut by each swing of

the scythe, the width of the swath, and the closeness of the cut to the ground, was generally chosen by my grandfather with great discretion, for this place belonged to the best man if the most was to be gotten out of the team. The spreading of these swaths belonged to us boys. Work, particularly in this season, began early in the morning, soon after light, often with a turn before breakfast which was at six. There was a stop of fifteen minutes for "baiting" at nine A.M., and the work often continued until nearly or quite dark. When the tall clock in the corner struck nine or the curfew that is rung to this day sounded, everybody retired, to be up with the sun the next day.

Good typical illustrations of the social life of this day are found in the various "bees" for many purposes. "Raising day" brought all the people together when the framework of a house or barn was to be put up and fastened. Sometimes sheep shearing and often sheep washing was a festival of this kind, though a minor one. One to three days each year were given to roadmending, and on these occasions neighbors gathered so that there would be perhaps a dozen of them working together. And here, too, there was abundant gossip and story telling, with a great deal of practical joking. Often neighbors focused all their forces upon one man's haying, planting, harvesting, etc., and then upon another. Breaking roads in winter was a conspicuous instance of this kind of coöperation. I remember once over twenty pairs of oxen, the old cattle and the young steers alternating, were attached to a heavy double ox sled with plows chained to each side, and all the men who could find room rode on it to sink the sled deeper into the snow. This train was forced through drifts sometimes nearly to their backs, and perhaps again and again where the snow was very deep, and after

an unusually severe storm when everybody was snowbound, several days might be necessary for this work. The women folk, too, found social enjoyment in the various sewing circles, quilting parties, and particularly in mutual visiting. It was very common in the slack season of the year for a whole family to go off after breakfast to visit a neighbor or relative, taking dinner and supper and returning in the evening, and thus making a business of enjoying each other's society. Everybody seems to have been as ready to give as to receive hospitality.

On this farm at least and more or less probably throughout the town, as in other backlying communities in New England, things changed very slowly, and I think my father's experiences of life here in his boyhood did not vary very much from mine. Indeed, I fancy we should find no very great change if we went back to that of my grandfather, for a rather settled *modus vivendi* had been established in this region which enabled the old New England families with thrift and labor to support themselves with comfort and self-respect and develop a good degree of intelligence. It was communities like this, rather than city life, that the framers of our Constitution had in mind, for in such citizenship we have the best possible of all foundations for a pure and permanent democracy, one of the best combinations perhaps of plain living and high thinking and feeling that history affords.

Some of the traits that I think were perhaps exceptionally developed among the Halls of whom I am writing were the following. The first was extreme conservatism. They had little sympathy with newfangled ways or even labor-saving devices for it rather suggested shirking. Ends attained by hard work were a little more honest, and were the more desirable to secure, the harder the effort was to obtain

them. My grandfather, for instance, always preferred the slow-moving oxen for all kinds of farm work to horses, and when his sons introduced the latter he was reluctant to see the improvement. There were almost no agricultural machines although, to be sure, the great unevenness and rocky character of the soil precluded many of these. These people were pretty set in the good old ways, and if they did make innovations or progress it was only in particular items and it was done with a great deal of self-consciousness.

A second trait very strong in the Ashfield Halls was family loyalty. There seemed to be a very deep, if half-unconscious, feeling that the Halls were the salt of the earth, although the grounds of their superiority to their neighbors would be hard to discover. I never knew an Ashfield Hall to marry anyone whom the family as a whole thought quite good enough. My mother, during all her life, was never quite adopted as a member of the family, although she was always on the most amicable terms with all her husband's relatives. The children of every outside parent had more Hall blood and were felt to be more members of the tribe. Another expression of this trait is seen in the fact that while the Halls were extremely individual, criticizing and opposing each other sometimes to the point of anger, they always presented a solid front to outsiders, never admitting the remotest disagreement but going out of their way to convey the impression of perfect harmony. In some cases family feeling was rather deeply stirred at the prospect of marriage by some member, and the candidate for possible affiliation was often subjected to the severest criticism and sometimes shown more or less overt discourtesy, although it very rarely came to this. This family pride found its fullest expression probably in the Thanksgiving dinners, when all the

clan possible came together. I remember over thirty descendants of my grandfather, in the later years of his life, who used to gather on these festive occasions.

Still another trait seems to have been a general belief in religion, but always with moderation. No Hall was ever a pietist; this would be distinctly bad form. Most of them attended church more or less but few joined, or if they did they fell off later in life. In their maturer years my uncles almost never frequented public worship. They were not unfriendly to or critical of religion but, as many expressions showed, considered it more manly and womanly to stand before the All-Father on their merits as livers of good lives than to be saved by a vicarious atonement. In one church there was a long and bitter war of the more ardent element against the so-called "horse-shed class," composed of people who would spend the long intermission between the two services in the horse-shed talking of secular matters instead of attending Sunday School. To this class most of my male relatives here belonged, despite the criticisms of my father.

Interesting, too, I think, is the rather strong feeling against the villagers on the part of those who dwelt in the town outside. The latter, when they came to town, almost always "dressed up," at least a little, and were more or less conscious. They felt that the villagers had in some ways the inside track because they could more readily combine their efforts and lay their plans, as for the town-meeting business. Not a few intermarriages between the villagers and towners, as they were called, resulted unhappily, and this line of cleavage appeared in nearly all the affairs of the town and the election of its officers and those of the churches.

To go to the village meant, thus, a certain degree of ideality. I think none of us ever did this without

changing our clothes and making ourselves more presentable, whereas the villagers themselves, who went about all the time in the same attire and deportment, lacked this stimulus. Attending church had somewhat the same effect. We always had good "go-to-meeting" clothes and school clothes, and also another home rig, and those who understand the psychology of clothes realize that with them one puts on or off a certain deportment and a certain set of somatic feelings.

Other traits which I believe more or less general in these decadent communities now characterized by their abandoned farms and by race suicide are the too frequent fashion of marrying late in life and the very common occurrence of the youngest child of a large family, on maturing, producing the largest family. Propagation thus from the youngest in successive generations is not eugenic.

Of my father's early boyhood almost nothing is known. He was strong and active and seems to have excelled at least some boys of his age in wrestling and running. He worked on the farm and went to the district school but of all this there is no information now accessible, for all who knew his boyhood have passed away. I have often heard him boast that he celebrated his sixteenth birthday by going into the woods alone with an ax, a beetle, and a wedge, and cutting down, splitting, and piling one cord of four-foot wood (or perhaps it was two cords). When he was eighteen he "bought his time" from his father for the three remaining years of his minority at sixteen dollars a month, and leaving home struck out for himself. With the money he earned beyond this at the end of the first year he attended Franklin Academy in the neighboring town of Shelburne Falls, the red brick building of which is still standing. Here it was that he formed the acquaintance of the late Judge

Pelig Emory Aldrich of Worcester, who later taught school in Ashfield attended by two of my aunts, of whom and of my father he gave me some reminiscences. My father, he said, was somewhat behind those of his age but worked very hard and, I believe, attended this institution several terms, which were, however, not consecutive since he was obliged to earn money in the interim. In this quest he went to Hatfield and learned the trade of a broom maker, a trade which he later pursued at the home in Worthington in the very early days of my childhood, supplying brooms for the chief store of the town. This process I well remember, and I contributed some of the tools he used to the Ashfield museum, among them an iron dish for sulphur used in bleaching the broom corn, which was done in a large bin he made in the cellar which must have held more than half a cord. There was also the sixteen-inch foot-spool for wire, the eight-inch needle and the leather palm-thimbles for forcing it through the broom, and the vise in which it was pressed flat to be sewed. So well do I remember this process that I believe I could myself make a good broom to-day. Some of these that he made had extra ornamentation. The handles, turned in a shop near-by, had to be sand-papered and painted and varnished. The chief ornamentation was in the braid which attached the outer stalks to the handle, which were sometimes four to six inches long and ornamented occasionally with his own initials woven into the wire. There was also a gold leaf put on the handles of the superfine brooms.

With the education he thus succeeded in giving himself he taught school in various towns for, I think, ten terms in all, the terms usually lasting from ten to twelve weeks. Of this, too, I find no record but I have often heard that he was exceptionally successful in discipline, so much so that he was sought

for in the schools of neighboring towns, particularly in winter when young men in the late teens and even early twenties attended and not infrequently made the teacher's life miserable. One group of these planned to throw him out into the snowdrift, as they had done with his predecessor, but learning of their purpose from a friendly older girl pupil, he brought in the next morning several heavy birch sticks, nailed the door, and thrashed the ringleader. He had no trouble afterward. Of his prowess in other experiences of this sort he had many tales. He was also a very remarkable penman, and his handwriting at its best was almost like copperplate. He also taught subscription writing-schools in the evening in the adjoining towns, and it was at one of these that he first met my mother.

Shortly after coming of age, I think in 1833 or 1834, he started West, on the way became for some months a lumber raftsman on the Susquehanna, and eventually found his way to Wisconsin, where he "took up" four lots of government land of eighty acres each. In order to fulfill the conditions of ownership he was obliged to make certain improvements upon the land and to reside there a year or more. Here he saw a good deal of frontier life and of Indians, and told us children many tales of the adventures of this period. After this he came home and resumed teaching. Within a week or two after his marriage he was obliged, in order to retain this land, the title to which had been challenged, to go west again for more than a year, and he did not return until some time after I was born. I just remember as a young child that during an attack of inflammatory rheumatism—the only illness I ever knew him to have—he either had to sell the land or go west again, and so did the former at what he thought were fairly advantageous terms. Now a part of

this land is included within the city limits of Milwaukee, and he learned when it was too late that he might have received a far larger sum for it at the time; while if he had had the sagacity to hold it, he would have later been a rich man. No other member of his family had shown any such *Wanderlust* and from their conservative point of view he was considered somewhat of an adventurer. Letters of his mother to him, however, show that she followed these ambitions with great solicitude for his physical and spiritual well-being and not without sympathy.

Of my life on the first farm that he bought on his second return from the west, and which we left when I was two and a half years old, I have only the faintest recollections. Most of the buildings, however, are still intact and I visited this place more or less systematically some years ago and described a few of the experiences of reminiscence which recurred.[4] The farm in Worthington to which we then moved was situated on the outskirts of the town, two miles from the village, on a crossroads near a brook. The house was a long, low building of one story and a large attic, with a second tier of rooms later built along its whole length in the back. This building has since been entirely removed, with all the many trees that grew about it. The family lived here for twelve years or more, and I remember it with the greatest vividness. The farm contained about a hundred acres and my father succeeded in paying for it, by the sternest economy, before we left.

During all this period he was active in church and town affairs and was elected to the state legislature in 1855 on the "Know-nothing" ticket, a cause he had very actively espoused. I do not think he took much part in debates on the floor but he was

[4]See "A Note on Early Memories," in my *Recreations of a Psychologist* (Appleton, 1920).

on several committees that required him to visit the governor, Gardner. He was an ardent supporter of the cause of temperance, and of Charles Sumner and Anson Burlingame, both of whom he greatly admired. I remember also that he gave a few public addresses at home on topics connected with slavery and other matters. He attended church quite regularly with his whole family, always sang in the choir there—as did perhaps a dozen other of the leading citizens—and during all this period was the teacher of a large class of ladies in the Sunday School, for which service he always made careful preparation, using many volumes of "Barnes's Notes." He was also a member of the local prudential committee which chose teachers for our district, No. 11, and I well remember my embarrassment when he used to attend, as he had to do, the school examinations and make the "remarks" at the close.

The Ashfield farm was larger, with a comparatively new and commodious house and an old one then standing, but the farm itself was in a somewhat run-down condition. He had relied much upon the prospective help of his two able-bodied sons to do much of the ditching, fence making, cutting of brush, lumber, etc., and the other work necessary to bring it into good condition, so that he was somewhat disappointed when one of us after the other showed an inclination to leave the farm and go to college. But after the disappointment was over he sympathized with us and helped us financially to the full extent of his means, urged by my mother. In Ashfield the position of deacon was offered him but he declined it, feeling, as he said, that he was not good enough, but really disliking the title as too sanctimonious. Here, too, he was active in local politics and was a delegate to various county conventions, president of a local agricultural club, and a more or less prominent

and frequent speaker in town and prayer meetings and other assemblies. He read very little but my mother read to him a great deal.

My aunt, Mrs. Augusta Waite Beals, who came into the family by marriage in 1857, in writing of her first impressions of my parents, says, "Your father was a tall, handsome, striking-looking man, particularly so for one occupied so much of the time with hard manual labor. He was never bent with the burden of years. I remember that George William Curtis spoke of him as a man of "Chesterfieldian manners." I can never forget his kindly eye with the sparkle of interest in all about him. He always had leisure (or took the time) to visit with all his guests. He was an eager listener but loved to express his opinions, too, at some length on whatever subject came up. He was extremely fond of music, and if I was there of a Sunday would gather us in the little parlor, take out his violin, and we had an evening of song. His soul was really lifted, and his eyes shone in enjoyment of the good old hymns. I think he had a religious nature of great sincerity."

She remembers, too, his solicitude about my own liberal views but believes that they gave him deep satisfaction because they coincided with his own more or less unconscious thoughts. At any rate, in the latter part of his life he passed through a period of rather serious religious doubt and came out with some kind of a creed which, though I think no one ever knew just what it was, made him happier. Thus it is the opinion of my aunt that his sons contributed materially to his emancipation from the narrow religious orthodoxy in which his early life was passed. She continues, "He was a thinking man with very strong opinions of his own and was unafraid to express them. He was a man of much dignity of character." He also had a very quick temper, but my mother

could almost always soothe him for she was never in the least ruffled, whatever occurred. They always addressed each other as "husband" and "wife." During the more than forty years of their wedded life together she acted as a balance-wheel upon his impetuosity, and in later life after the children were away they seemed to settle to a more tranquil existence and to come even closer to each other. It is therefore no wonder that during the three years which my father survived my mother he was more or less depressed and, as his strength failed, sometimes expressed a belief that it was time for him to go. Like my mother, he was of a very strongly social disposition and was fondest of company and visits. His susceptibility to music was, I think, exceptional for I have often heard him describe the sensations it produced in him and seen him wipe his eyes when he heard passages that pleased him.

After a period of failing health he died, like my mother, by night in bed—he at the age of seventy-six, and she at sixty-nine. A post mortem of my mother showed that death was caused by rupture of the artery near the heart. My father retired in tolerable, though weak, health and was found dead in the morning, with every indication that death had come painlessly and tranquilly.

I venture to reprint here, without change, the only bit of literature by him now accessible—an address at a county fair just before the Civil War—written out in his copperplate hand. This must have been prepared about 1860, when my father was forty-eight.

Farmers appear to be divided into three classes. The first I shall mention are chance farmers, who obtain the products of the earth by the application of seed, manure, and labor to the spot of land which most needs plowing;

or, perchance, to that which is most easy to cultivate. Having gone along blindfolded, experience has taught them no lessons to regulate their practice, except that their crops grow from seed buried in the earth, and that manure applied in some way makes them grow better. These all chancing to meet in soil to which they are adapted, give them occasionally a fine crop. This they very appropriately call their good luck. The second class may be styled hereditary farmers. They plant their corn on the knoll, their potatoes in the valley, and sow on the plain. All very well perhaps. But ask them *why* they do so, and they will tell you with the utmost confidence that is the place for them. Should you venture an opposite opinion, and suggest that a different arrangement might be preferable, you will find yourself overwhelmed with arguments at once. "Why my father *always* planted the knoll to corn, and the valley to potatoes and sowed the plain. And he was a first rate farmer, and so was grandfather and he managed the same way." The third class embraces theoretical farmers. This may be subdivided. The first division includes those who are farmers in theory only. They prove no theory by practice. Yet they are ever and anon at their post, as if their want of practice was to be atoned for by the superabundance of theory. They abound in fruit, though not of the earth, but of the brain. Their products are rules —not potatoes. Products of the pen—not of the hoe. This class comprises authors, editors, lawyers, etc., whose operations consist in printing, speech-making, etc. They scratch the face of paper but never perpetrate the like act on the face of mother earth, especially if she will give them what they want without. These are entitled to great respect for characteristic benevolence, for they perform half the work, that is, the head work. Indeed, they would be willing to do the other half would it not tire their backs and soil their fingers. But excusing themselves from this, they will congratulate others in the "delightful task." Indeed, what can be more amusingly ludicrous than the imperturbable gravity and mock earnestness with which they heap their encomiums without measure, on the head of the laborer; when, like their class of olden time they will scorn to move

his burden with one of their fingers. The last division comprises those who produce the fruits of the earth as the result of theory applied to practice. These prove theories, discarding the false and practising the true. Combining virtue and intelligence with physical and moral strength, of all creatures deriving subsistence from the earth, none more deserve respect.

I proceed with a few remarks on the farmer's profession. This subject was introduced and prosecuted at some length on a previous occasion by Mr. Brewster, who remarked that the profession is looked upon with scorn by young men. This is undeniable. It has been a subject of some remark and of regret for many years. Judge Buel (deceased), former editor of the *Albany Cultivator* once wrote and published an able article on the subject, and under the title of "The Professions." In this he set forth facts showing the existence and extent of the aversion, together with the causes and remedy for the same. Among the many causes named were the comparative facilities for acquiring knowledge. But first and above all, was female influence; that ladies were alike enemies of dirt and friends of knowledge. He predicted reformation, said the scale had already turned, that within twenty years young ladies, instead of saying scornfully, "would *I* have a farmer?" would ask doubtfully, "can I *get* a farmer?" And, further, that agriculturalists had virtually derogated their own profession by encouraging their daughters, alike in their silly prejudices against young farmers, and in favor of men of other callings. But, like our worn farms, our profession is down in popular estimation. The truth is, labor is held in contempt by a large class of the human family. The retired aristocrat could not labor if he would without degrading himself and losing caste. The smallest package must be conveyed to his door by other hands than his. And he cannot take a healthy exercise at the saw-horse without first locking himself in some cellar to evade observation, and then, perhaps, administering the oath of secrecy to the servant should he chance to detect the crime. Can he labor without depreciating his estimated value; will he with all his conscious dignity descend to the rank of him

he sold on the auction block? But this is city life you say. True, but is it not also true that it has its effect in the country? Can manual labor be despised by any considerable portion of a community and not all sympathize with it in some degree? How much more, then, when it includes the wealth and fashion of the land?

But what is to be done? Folding the hands in despair will only augment the evils before us. Searching for the cause of our ruined reputation avails nothing in itself. And yet, this discovery, accompanied by corresponding efforts to remove the cause, is an important step towards our elevation. But I ask again what is to be done for our profession. I reply, we must take it from the dust and raise it to the dignified position to which it is destined. There are difficulties to encounter 'tis true; but we must meet them with strong hands and stronger hearts. Archimedes would raise the world but wanted a fulcrum. This even, we are to supply by the education of our sons. Ignorance, says Robert Hall, gives a sort of eternity to prejudice and perpetuity to error. No calling has suffered more from the effects of this than our own. Hence, we need not wonder so much at the contempt in which it has been held as that it has been held at all by the intelligent and respectable. But such instances, though not solitary, have been the exceptions rather than the rule. Ignorance constituting his bliss, and dirt the ever conspicuous badge of his calling, caring little which most abounded, the young farmer could not respect himself and might justly be regarded with disfavor by others, and an object of dread to the delicate and sensible woman. But improved and enlightened in his mind and his person, she would enlighten both his heart and his linen. Hence we must educate our sons. We must educate them farmers—practical, scientific, efficient, intelligent farmers. They must be instructed in the analysis of soils, the application of manure, the physiology of plants and animals. In short, they must understand everything which can facilitate improvement and make them masters of the art, and they will have nothing to fear for the popularity of their calling. Knowledge with virtue commands respect and influence. Give them these

and train them to habits of persevering industry and frugality, and with the blessing of Heaven competence, if not wealth, will be the inevitable result.

But how is this knowledge of agricultural science to be conferred you may ask. I reply, by imperatively demanding the introduction of elementary work into our primary schools, that our boys may learn and recite the lessons there and practice them when they come home. Like agricultural colleges, our school-houses should stand contiguous to land held by the district for the purpose of teaching the boys to work it. I would give to each his little farm, and each girl her flower patch, and then inspire them with laudable emulation by fairs and premiums to produce, instead of destroy, the fruits of the earth. And all this they should learn from their books. It may be said that the public demands practice, not books; that we have already too much printed and too little practical farming. 'Tis true that book farming has in a measure gone into disrepute and disuse among many pretty successful and respectable farmers. But is not this owing to the fault of rules, which, like western cities on paper, appear plausible but on earth are impracticable. It must be admitted that much of the printed matter thrown out with an honest design to aid the farmer to a successful result of his toil is not worth the paper that contains it. But to reject all published theory because erroneous ones have found their way through the press is unwise and impolitic. On all subjects errors must and will appear. But does it follow that truth may not also be found in its train? Agricultural like other science must be developed by a slow process, by critical observation, by unremitted toil, by unwearied effort. It must have its infancy and youth of weakness and imperfection ere it ripens into maturity. But we want books for our schools. Books of practical agriculturalists, whose rules, maxims, and precepts, are the result of actual experiment, and not the works of authors who let out their pens to the highest bidder. It has been truly said that the farmer wishes to know how he is to make two blades of grass grow where but one grew before. Geology and Chemistry are ready to gratify that desire. The knowledge of these is indis-

pensable to the highest success in the art. Qualified as he may be and as he should be, the young farmer need not doubt as to what shall be the theater of his operations. He can derive subsistence anywhere—from the mountainous sterile soil of the East as well as the fruitful plains of the West. He can live on a rock, provided there be ten inches depth of soil upon it. It only remains for him to decide where he can most enjoy the good of his labor. Is he destitute? he *must* stay at home. If poor, *better* stay at home. If rich, he *will* stay at home. Such is the general rule; a rule founded on reasons which I would fain present did my limits allow. Does he dissent from this conclusion? Let him not be deceived. Be assured the pleasing pictures of prairies blooming with flowers and vocal with song, of forests teeming with bounding game, of creeks swarming with the finny tribe, of graneries crushed beneath the rich harvest of yellow maize all have their dark as well as bright side. I know whereof I speak. Mud, mosquitoes, snakes, fetid air, limy water, lack of timber, lack of stones, lack of fruit, lack of schools, lack of churches, lack of vigor, and often lack of courage, lack of health and lack of life, are among the things to be filed in offset.

But I cannot close without first calling your attention to the improvement of stock, especially in the dairy department. At the last exhibition of the Green Mountain agricultural society who was not pained at the lamentable deficiency in this department. It became indeed a subject of remark that there was not a premium cow present. And the committee in the conscientious discharge of their duty were reduced to the painful necessity of withholding premiums except in a solitary instance. It is worthy of remark that the cow receiving that honor was of the native breed. And, further, that with scarcely an exception dairy statistics award to her the palm. Hence the inference that it was a sad day for the dairyman when foreign blood first flowed in the veins of his cow, however much the butcher might have rejoiced. The dairyman, then, must undo this mischief before he attempts progress. He must first restore, then improve, and perfect. Is it not time that this subject should receive attention? A little reflection with corre-

sponding action will set all right. It should be remembered that in the animal as well as vegetable kingdom, like produces like; that it is as absurd to expect good cows from poor as good corn or good potatoes from imperfect seed. Should the plowman and butcher be admitted to choose from the dairyman's herd, that choice would by no means impair the dairy, except in magnitude. They would leave to him the animals of his choice. They would not propagate animals for the yoke, or slaughter, from the favorite milker. Nor should the dairyman propagate from any other. Each require distinct or opposite qualities which seldom combine in the same animal, and should, therefore, never be attempted, as confusion will be the result. But qualities suited to the design or use should be sought and propagated by each, as in this way alone can the highest state of perfection be attained. Elevate the pedigree of the cow and she will elevate the contents of the pail and firkin. Do you wish your ox to possess points requisite for strength and endurance, seek those developments in his dam. Do you desire him for the slaughter, see that he inherits those qualities which best fit him for that end. Do you expect your cow to produce yellow rich butter in large quantities, see that she inherits qualities which justify that expectation. These qualities must be inherited in the line of her sire as well as dam. Improvement in the size and quality of animals is as practical as in the size and quality of crops. In the latter case it is not more true than in the former that what a man sows that shall he also reap. Hence great care should be taken that the domestic animals be able to boast of a noble ancestry.

Hitherto, improvement in the various departments of the farmer's calling have not kept pace with the progress of the age. As an end, the means of saving labor have been paramount to those of producing its greatest results. And the time thus having been devoted to law, human physiology, history, politics, etc., the farmer is better informed in almost everything else than the science of his own calling. But the farmer's calling is destined to rise. And, sir, may not we congratulate our infant society for

the conspicuous part she plays in hastening its day of final triumph? This association, like its officers, has acted no subordinate part in the agricultural drama. Developing energy and talent above her years, adult societies may well be proud of their Green Mountain sister. Already she has drawn upon her the admiration and encomiums of the surrounding country. Aided in future by the wisdom and dispatch which has hitherto marked the career of her officers, what may we not hope for our cause? I repeat, the farmer's calling is destined to rise. It will rise by its own internal merit with all the weight of popular prejudice upon it. Improvement will mark its course to the end of time. Its destiny is known only to the imagination. Unborn generations may yet smile at the recital of our most sanguine hopes for the future dignity and elevation of our cause, as do the people of the empire state at the supposed fanaticism of DeWitt Clinton, when he predicted that boats would one day sail from Albany to Buffalo. As it is the most important of the indispensable avocations, so is it, in reality, the most interesting of the honorable callings. It contains the elements of true greatness, as it places man aloof from many of the demoralizing influences which cluster around other pursuits and brings him into communion with Him whose works proclaim His presence. In short, it allies his soul to God, as He is seen in the fruitful valley, in the robe of the forest, and in the cattle on a thousand hills. Hence when the spirit of the age shall turn from mechanical and the finer arts, and breathe its inspiration into the bosom of agriculture, then, like Samson restored to his wonted strength, it will rise from its degradation and bear away upon its mighty shoulders the pomp and fashion of the world, and hurl them beneath its feet; and "the hand that feeds" shall be inscribed on the temple of its fame.

My father always insisted on what he called putting brains into all our work. He believed in the easiest way and was wont to criticize my uncles as always preferring the hardest. Thus he was always adjusting the nibs on scythe snaths, discussing the

methods of raking, hoeing, chopping, and selecting, and sometimes making tool-handles in a way that would have pleased Taylor and the efficiency experts of to-day. His *chef d'œuvre* in this respect was an originally devised and personally made machine for sowing carrots, with handles like a plow, which made the furrow, sowed the seed by a spring made of a hemlock bough that rotated a tiny cylinder with a groove, an apparatus that covered it, and a broad wheel that patted it down, so that with this a man could sow a field of an acre in a day. This he often did for his neighbors. The machine is still preserved in the Ashfield museum. He also believed, as the more conservative farmers of his day did not, in new machinery and was one of the first in that community to use the mowing machine, horse rake, winnowing mill, corn sheller, a new patterned churn, etc., and the sewing machine indoors. He was always studying how a man could best apply his strength in all farm operations, and in "the shop" taught us to plane alternately to the right and to the left and to use many tools, a foot lathe, etc.

He and my mother always felt that we children should receive the education which they had striven for but failed to attain, and always impressed it upon us that we must realize their aborted ideals, which was a great spur to us. Both of them, but particularly my father, always felt that his life had been more or less of a failure because he had fallen so far short of realizing the ideals of his youth, and hence when we were young we always had to attend any school within reach, and after the first initial reluctance at having us leave the farm he in every way encouraged our academic aspirations and took the greatest pride in our every trivial success. We always felt that both of them were watching us for signs of promise and ability. My father loved to figure, and evenings and

rainy days covered much paper and filled many note-books with calculations of how much profit each plowed field and each animal raised for the market produced, how much was spent per year for help, food, clothing, etc., and how much should be devoted to debts and later laid by for a "rainy day" and for old age.

My father had a quick temper. I remember but one severe flogging, however, that I received at his hands. The offense I forget, but I recollect distinctly that he took me into the parlor bedroom, which was the most remote from the family, and after a very serious admonition, insisting (I thought hypocritically) that it hurt him more than it did me, gave me a severe whipping with a willow rod in a part of my body which I could not show to my mother for her sympathy. I felt that he was trying to make me cry and resolved I would not and so did not, although I could not refrain from tears, which I found my mother freely indulging in when we emerged. His temper was of the inflammable kind and expressed itself most commonly in tongue-lashings and not infrequently in sudden slaps and cuffs. Then to justify himself, for he knew we always told mother, he would tell her how bad we were. She always stood up for us and certainly generally succeeded in placating him, or at least mitigating his displeasure. The last physical pain he ever sought to inflict upon me, I well remember, was when I was fourteen. We were trying to split a four-foot log by each striking at opposite ends of it into the same crack. My ax went wrong and somehow hit the handle of his, giving a very severe jar to his hands, whereupon he slapped the side of my face. I stepped back in anger, partly real and—I distinctly remember—partly feigned for effect, doubled my fists and glared at him as if I were strongly tempted to hit back. I shall never forget

his amazed look. I was never hit again. Despite all this, however, I had for the most part only kindly feelings toward him, realizing perhaps that I was often exasperating and also, though much more dimly, that he was having a hard time in a life which was full of disappointments for him. I was never able to cherish the least resentment and do not think I ever had a lasting antagonism, save one or two, toward anybody in my life. He was, on the whole, one of the best of fathers. When I began to be settled in life and had a home of my own, first at Harvard and later at Johns Hopkins, I earnestly and often tried to have my parents visit me, but in vain. The long trip and the changed mode of life deterred them, so that they always preferred to have us visit them, which we did every summer that we were in the country. When later I bought the old place from my father, although he was anxious to sell and I paid him more than he could have obtained elsewhere it was very hard for him to reconcile himself to the changes I inaugurated; and yet, on the whole, he seemed to take more pleasure in them for he continued to live there until after my mother's death.

It is said that parenthood in every one is best at a certain stage of the life of the next generation: that some mothers are best in the nursing, others in the period of early schooling, and that still other parents are most helpful in the various stages of adolescence. While my parents tried to do their full duty to us at every age, I have always believed that they felt a greatly renewed interest in us when we entered upon the stages of the higher education which they had not enjoyed. The hundreds of letters from my mother and a few score from my father, which began at my first leaving home and continued all through college and my studies abroad and to their death, testify to their intense interest in everything,

even the most trivial, that befell us, and it almost seems as though the older and more independent we grew the more absorbed they became in what happened to us.

I was always very conscious of the public appearances of my father, and in my boyhood and at least in my very earliest teens was always judging him as a part of my own self-consciousness. If he spoke in public where I was present I was on tenterhooks, wished he would speak slower, faster, better, wondered what other people thought of him, and there was a stage when it was so great a strain on my self-feeling to ride to church in the family carryall and get out on the stone steps in the presence of the many who were standing about that I often preferred to walk both ways. This is a feeling that I cannot fully analyze. In town meeting, in school exhibitions, agricultural meetings, etc., I always wished my father would not speak, although he generally did. It was not so much that I thought he did poorly or that I felt any responsibility for him as that it seemed to draw attention to the Hall family, while a little of it was due to the fact that he often hesitated so long before finding the right word.

The most mortifying thing to me during all my childhood was that my father, along with the other stock kept at the barn raised and sold pigs, having sometimes half a dozen litters at once. He spent much time banking the inner pens in the long shed where they were kept, made flying doors hinged at the top, cared for the new-born, pastured them in one lot where all were free to root up the soil. When they were four weeks old I was compelled to hold all the male pigs, one after another, for an operation which raised the utmost commotion in all the pens and brought forth the loudest squeals that human ears can bear. Worse yet, I sometimes had to drive the

hogs for miles, and occasionally through the town and back, past the houses of people and even girls I knew, for which I was often derided by my schoolmates. I think this was the most degrading experience of my life, unless it was to have my father occasionally take surplus pigs in a trap, he had devised and constructed, by a back way to peddle them to the men and women in the factory section of Shelburne Falls, six miles away. Both he and my mother felt this necessity, when it came, to be simply degrading. One day in a select school at the "Corners" the teacher, a neighbor, who always "put on airs," referred before the whole school to the cause of my absence the preceding day as driving hogs, which was true. Everybody tittered, and I think I have never felt a mortification so profound or hated any one so intensely. Years afterward, when I was instructor at Harvard, I lived for a year—and to all appearances most amicably—in the house with this man, and while I was there it so happened that he sickened and died in the night. I, as the only man in the house, was obliged to "lay out his corpse," in doing which, owing to the nature of his illness, there were most painful circumstances. Even this and all the Christian spirit I have ever been able to summon never made me forget or very much abated this resentment.

According to the custom of that day, my father and mother both had "albums." Both were elegantly bound in morocco, with gilt edges, and in each we find several score inscriptions made by their friends, mainly during the decade 1833–44. Some of these tributes are in prose but most are in poetry, and a goodly number were original. Not a few were illustrated by water colors of various kinds. The majority of the signers in my father's album were his schoolmates in the Franklin Academy, which numbered over three hundred pupils from the towns

adjacent to Shelburne Falls, and many of my mother's were from the friends of the Albany school period. In reading these effusions one is chiefly struck with their almost unexceptional religious tone. The writers descant upon the vanity of fame, wealth, and every earthly success, and praise chiefly friendship and virtue and, above all, piety. The wish most often expressed is that despite the sad parting at the end of every school period all may meet again in Heaven, and that every one may seek chiefly the abiding joys there. This life is vain, fleeting, it can never bring a sense of real worth or value, and even love is not perfect unless fixed upon God or, more often, upon Jesus. To ask an acquaintance to write in one's album was itself not only a tribute of respect but a compliment, and it was apparent that nearly all felt it to be such and so not only wrote in their very best hand but expressed the loftiest idealism of which they were capable. Some of these selections were inculcated upon the minds of us children some years later, so that in rereading them now there is a pleasing recrudescence of juvenile recollection.

Altogether we have in these choice pages, which were always cherished by my parents and were, in nearly every case, written by unmarried friends in the later teens and twenties, exquisite illustrations of sublimation and how the heart ripe and yearning for love infallibly turns to religion and especially to death, which was a theme mentioned, I should judge, in not less than half of all these pages. In my father's album I find one carefully folded sheet with a colored picture which I think he drew, of a weeping willow overhanging a tomb on which is inscribed the name, Nancy Miller, to whom he was engaged before he met my mother and who died of consumption at the age of twenty-four. On this sheet also is a generous lock of her dark chestnut-brown hair braided in the

shape of a friendship circle. Of this and of her I often, as a boy, heard my parents speak, and my mother used often to refer to herself as her husband's second love while he was her first. Not very long after they were married my mother presented my father with a tiny volume entitled, *The Bridal Token: or A Hint to Husbands.* The story is about a young man who rather neglects his wife after their wedding and repents later when she dies at the time their first child is born. He tells the story to his daughter, evidently as a warning when she wants to marry, and she and her husband live happily presumably because of the warning.

My father first saw my mother as she sang in the choir at Plainfield and always represented himself as having fallen in love with her at first sight. Desiring her acquaintance on a courtship basis he sent the following note written in his very ornate hand:

Miss A. Beals:

The compliments of the subscriber respectfully accompany this early solicitation of your company. Should the desired interview seem proper and agreeable to you, please signify your approbation by retaining this billet; otherwise return it.

Yours respectfully.

Oct. 1, 1842 G. B. Hall

There is no other item now accessible of their courtship or their marriage save that the latter some years later was in the midst of a very severe snowstorm, so that a drift had to be tunneled to the door.

If ever parents lived for their children, mine did. We were not only their offspring but as we developed they looked to us to realize their own youthful ambitions, the thwarting of which they always felt so keenly that it actually clouded their lives. They alone of all their brothers and sisters ardently aspired to

a larger horizon and to be and do something worth while in the world, and were always oppressed by a sense of failure. We children were incessantly exhorted to "make good" in their place, to succeed as they had fallen by the way. As we matured this became more and more of a spur to us, and education seemed to both them and us to open the only way. The pathos of their disappointment grew upon us with advancing years. Reversing the usual order, I think that the older we grew the dearer we became to them until they seemed to find a kind of vicarious completion of their own lives in us. My mother always sympathized, encouraged, stimulated; while my father warned, criticized, and sometimes rebuked to the end of his life but nevertheless reinforced, sooner or later, all my mother did and said for our good. In most respects theirs was an exceptionally happy marriage for the traits of both complemented and supplemented each other in a high and very unusual degree. Thus the family environment, though simple, was always wholesome and tonic, and the few and slight discords always ended in harmony. My mother's frequent and severe attacks of migraine all her life until her later years, with the violent fits of nausea when my father always had to hold her head, only seemed to increase the tenderness of all of us for her. At these times we had to go on tiptoe and even play in the yard, must be quiet, and the evenings without her were sad and solemn. My father was always more or less of a "lady's man" but there was never a trace of jealousy or cause for it on my mother's part, although this was a common subject of jest between them. His devotion to us in his way was no less than hers. They conferred freely and frankly on all matters, with no reservations, and in these councils I think it was she who generally, by reason of her infinite tact and patience, prevailed.

My aunt writes of her, "She was an unusual woman, gentle, refined, both intelligent and intellectual, loved fine things, and with all the limitations in her life was always cheerful and made the best of everything. Her Sunday school pupils were devoted to her. They all loved and appreciated her and found her counsel and example helpful in their daily lives." My aunt also records a month's absence from home, about 1860, prescribed by her physician, in which she visited her brothers in Stamford and New Haven and later made a trip to New York. But very much as she enjoyed this visit, she longed to get back home for she felt that her place was there. The outside world had no particular charm for her, although she loved her friends and was of a very social disposition.

My niece, Edith Hall Plimpton, writes me to the effect that my father was a great lover of children and used to take her about the farm, explaining things and sometimes admonishing her; and says that she felt in her childhood that she would like to do everything for him that he wanted but stood in such awe of him that she would dread to incur his disfavor.

The above will serve to show that I came of sturdy, old, New England, Puritan stock that had been long enough in this country to be more or less acclimated, that in the moral atmosphere of my home I heard more of duty than of pleasure, that religious influence and tradition were very strong, that generations of toil and life close to nature had toned down the spirit of enterprise and adventure that must have animated my pioneer ancestors in their migrations from the old world to the new, and that after long dormancy the same spirit had shown some degree of resurgence in the excelsior impulsions of both my parents.

I recall and cherish the memory of both of them with an appreciation and gratitude that grows with

every passing year. I owe to them my rather exceptional physical stamina which they transmitted from many generations, for every ancestor I can trace worked with his hands and lived an active and mostly out-of-door life. Most were farmers and the rest followed the sea or were carpenters, and nearly all were pioneers and spent their entire lives in the country. None were rich, none were traders or profiteers, while none were paupers. Most avoided towns or even villages and led rural lives close to nature. They were frugal, thrifty, economical, and devoid of great ambitions. They were home-staying, content with simple ways, and virtuous, whether with or without piety. I cannot find that any ancestor or blood relative ever committed a crime or was insane or mentally abnormal, and very few were tubercular. Not a few lived to a great age, and despite all the hardships that cut many of them off prematurely they often had large families. So far as I can learn few of their offspring died in infancy, while most married neighbors' daughters so that there was almost no infusion of other than English blood save occasionally Scotch and Irish.

As I review their lives I realize that I have no mental aptitudes or moral traits of character that I did not inherit from my parents. With the stimulus and opportunity they gave me I believe both of them would have achieved more than I have done. No children in our early environment, and I believe I may safely add in any other I know, even the most favored, ever had the incentive to make something of themselves as did the three offspring of my parents for, as I have said, they lived for and in their children to a very exceptional degree. We were the very center of all their deepest interests, not only at home and through college but out into life, and this interest seemed not to decline but to grow till they died. I

rejoice that they both lived to see all of us settled in our own various fields of activity, I as professor at the Johns Hopkins; my brother as a pastor in Cambridge, where he died in the early thirties, overworked in a large parish; and my sister a teacher in a well-known institution for the higher education of girls. Our parents could never be induced to visit us in the homes we had established for ourselves but correspondence was incessant from the time we first left home to the end, and several hundred letters of my mother, who generally wrote for both, are still in my possession in which she often said that in their isolation letters from us were their chief joy.

In every success or failure and in every joy or sorrow that has come to me I always did and even yet think of them and imagine how they would feel and what they would say. How often I have wished I could bring them back if but for a day or an hour to show them what has happened in the world since they left it, and above all to tell them again, and with more emphasis than I ever did, how much I owe them and have striven to fulfill their hopes and wishes for me, and how much I owe to that motive. For years after their death I used to pity them for their straitened circumstances and their thwarted ambitions but I do so far less of late for, after all, they enjoyed most of the really essential goods that life can offer. So, as every summer I revisit their graves under a stately row of pines at the edge of the village cemetery, where I may probably ere long join them, I am both proud of them and happy to realize that they were victors in life's battle with circumstance and that I am, in some peculiar sense and degree, only a continuation of their lives. While I have tried to be a good father and have spent far more money in the up-bringing of my offspring, I now realize, when it is too late to avail, that in my greater pre-occupation I have really done

far less in the way of incentive and personal effort and attention for my own children than they did for theirs.

Since writing this chapter I have discovered a bundle of letters that passed between my parents when they were separated, which occurred thrice during their nearly forty years of married life, once very soon after their wedding when my father was called west to save his Wisconsin land, again when he was in the legislature (1855–1856) at which time my mother stayed at home to care for us children and the farm, and once more, a few years later, when she went to New Haven to recuperate with her brother. The surprising thing to me about these letters is the strength and especially the expression of affection on both sides, particularly by my wholly undemonstrative father. He was usually averse to letter writing but here writes often and voluminously. He recorded every trivial incident and longed to see and even to kiss her, which we children cannot remember ever seeing him do at home. My mother not only felt, as she expressed it, that she could only half live till he came home but descants, often with great humor, a new quality I never saw in her, upon not only local but even public events, often indulging in caricature and almost satire upon personages in town, state, country, and political movements in a way I never dreamed she knew or cared for. These letters show how much each meant to and stimulated the other and suggest that all married couples should separate occasionally in order to bring out the best attitudes of each to each. Yet it was of such parents that I often had a contemptible juvenile feeling of shame, as when they met Mark Hopkins, certain of my classmates, George William Curtis, Professor Charles Eliot Norton, and others. If they could but know it, they have had far better reasons to feel

shame and pity for me, but very few of these hundreds of letters I must have written home are now extant. They must have been lacking in the quality my mother most treasured, demonstrativeness, to which I seem to have been temperamentally averse. I know not why since my brother did not lack this, and I now wish I could atone.

If my life has been somewhat more in the open than theirs, and if I have found more public ways of self-expression, I feel that I have lost something very essential that they possessed. Hard as it was for them, I think it was most fortunate for me that they were poor, humble, and hard up against the stern realities of life. On the whole, I would not exchange my boyhood for that of any boy I know. Such an environment for boys, which cannot to-day be provided anywhere, was not only full of excelsior motivations but was so varied that it provided healthful activities of every kind for both body and soul.

My parents, too, were most ideally mated, the qualities of each supplementing and evoking the best traits in the other. Their mutual adjustment grew to the end. In their later years each often expressed the wish to die first for neither could face the world without the other. Freudians tell us that all boys pass through a stage in which deep down below consciousness they feel impulsions toward killing their father and marrying their mother or, in milder forms, revolting from the former and cleaving to the latter. This Œdipus complex is misnamed, for Œdipus never revolted against and did not even know either of his parents as such. I distinctly felt a constraint removed whenever my father was absent and always turned to my mother for sympathy, and she alone was my confidante in nearly everything. There was also "revolt" or a "manly protest" against her but this was less pronounced and less instinctive, and more due to

the taunts of other boys. My first wife was remarkably in the mother image, not only in temperament, tastes, and disposition, but even in looks, although, (after being a widower for ten years) my second wife was in nearly all respects the opposite of this type. My early and especially pubescent antagonisms toward my father may have laid the foundations for a certain independence of authority and impatience of control and an idealization of freedom in thought and action, and it may be that this would have reached the extreme of kurophobia or morbid horror of restraint had it not always been held in check by the predominant and ambivalent feeling of respect and even awe for him. There was affection, too, although the very atmosphere of Puritanism chilled almost every manifestation of it.

I inherit, too, my mother's even and sunny temper, her exceptional dread of disharmony or even disagreement, and her exquisite sensitiveness, which makes it hard for me to disagree with any one, especially to his face. Thus in disposition I am an extreme if not almost pathetic pacifist. With this, too, goes, I think, my very strong and deep impulse to get into sympathetic rapport with the most diverse types of personality and opinion. I want on every subject, first of all, to take in all others' views unchanged and know not only what others think but how they feel, however *outré* their standpoint. On the other hand, if this pristine passion for amicable relations is broken through, I often tend to be not only critical but severe and sometimes to give way to temper, which is my father's diathesis voiced again in my soul. Thus in these and in many other ways I love to think of myself as only the prolongation of my parents' lives and of making patent what was latent in them.

CHAPTER III

CHILDHOOD AND BOY LIFE

I. Babyhood on farm—Relations with and feeling for animals—Animals as embodiments of human traits—The first gun and imagination — Passenger pigeons — Trapping — Rats, woodchucks, squirrel-hunts—The crow and other birds—The charm of water—The development of ballistics—Running away—Scrap books—Collection crazes—Medicinal plants—Locating stories on farm.

II. Home industries in flax and wool—Acquaintance with the work of the tanner, blacksmith, etc.—Stories and shed talk—Gossip as a foreschool of psychology—Sample tales and myths—The first day at school—Organization, conduct, and studies of the school—Fights—Early compositions—Successive passions for music, dancing, oratory, romance-writing, and their abortion—The old-fashioned school paper—The epitomes of reading—A sample "composition"—*Vita Sexualis*—State of morals in some old rural schools—Girls—First acquaintance with death—First teaching experiences—Old New England farm life as an ideal environment—Tendencies to revert to it—Heredity vs. environment—Individuality—Character long plastic and why—Country best for children—A new complacency with my life—Inverse ratio between hope of heaven and fullness of life here—Why I did not go to war in the early sixties.

I was born at my grandfather's house in Ashfield, Massachusetts, where my mother was staying during the absence of my father in the west, where, as I mentioned before, he had been imperatively summoned a very few weeks after his marriage. I have often speculated on the prenatal effects of this absence. which may have been eugenic although it may have been a source of increased mental anxiety to my mother. Of my earliest infancy there is no record except in the lost, imperfectly remembered diary of

my mother began soon after my birth. I seem to have been a healthy child and to have been nursed at the breast until I was some eight months old.

Upon my father's return, when I was several months old, he bought a farm in the western section of the town, where we lived till I was two and a half. Of this I retain a few faint recollections which I have elsewhere recorded in connection with a systematic visit to the place some sixty years later.[1] My memory of the old red pump with which I played, certain, although it was somewhat hazy and doubted by my parents, was triumphantly vindicated by this visit, for I found it. I also rather vividly remember a scene in the Worthington house to which we moved, particularly the piles of boxes and barrels which filled the spacious living room when we arrived with the last load of goods. Here the family lived for twelve years, although for possibly half of this period or less I lived with my father's people in Ashfield. I also distinctly remember, when I was three and a half, coming home with my young brother from a neighbor's to find a new-born sister and also how at this neighbor's the kitchen floor was torn up, revealing what seemed to me a deep well underneath, which for years was the pattern of all my ideas of hell. I have a vivid and very early recollection, too, of our strong propensity to visit the large though not deep stream that flowed by just across the road, of the willow huts that we built near it, of the mud pies in and near the tiny rivulet that flowed into it almost from our yard, near which stood an apple tree with an abundance of small and very bitter fruit and with a hollow into which we could just squeeze ourselves. Four other apple trees grew near the front yard, and another large one, far easier to climb, grew over the

[1] See "A Note on Early Memories" as above.

grindstone in the back yard and bore large apples striped with red, very unlike the green russets and the purple "sheep-noses" and the lighter "seek-no-farther" varieties. The prohibited things were swimming in the big brook (which we could do unobserved behind the willows), walking the high board fence and bank wall, playing near the deep well, running over the vegetable garden when things were just growing, going behind the horses in the stable or in their stalls, getting into the barnyard when the bull or the butting ram were there, climbing into the pig-pen when there was a young litter, etc. The violation of this latter precept once nearly cost me my life. I climbed over in a spirit of bravado to show a young neighbor caller a new litter, and incidentally to demonstrate to him that I was not afraid. The gigantic mother, alarmed as always by the presence of a stranger, which generally meant the loss of one or more of her young, flew at me, seized me by the arm, threw me upon my back and was about to disembowel me when the neighbor clubbed her from outside and I scrambled to safety, utterly exhausted and so frightened that for some time I could scarcely move.

All of us children, perhaps I most, were always greatly interested in the animals. Not only the horses but the cows and some of the sheep received names, and the faces of even the latter, perhaps twenty or thirty in number, were not only distinguished and recognized but felt to be very indicative of character. We often surreptitiously pulled out bits of their wool with which to stuff tiny pincushions, the making of which was at one time a craze, though we usually gathered this wool from the briars in the pastures frequented by the sheep.

Among my earliest duties was that of driving the cows to and from pasture each day in summer. Although the distance was hardly twenty rods there

were four corners in the road and two abrupt changes in direction, and a bridge to be crossed. The most difficult problem was to let down the bars when we had driven the animals to them, without letting out those which remained in the pasture or scattering those we wished to put in. Thus very often, especially in the spring when the young cattle are prone to capering and antics when first let out of their winter quarters, there were many runaways. The cow bent on an excursion in the road is very wary of any one who seeks to get around or ahead of her and turn her back, and long detours through the adjacent fields were often necessary. Worst of all was, naturally, when the cows would not come home but remained at the farther and very elevated part of the pasture, "above the woods," which they were particularly prone to do on dark and rainy nights. This was nearly half a mile distant. I vividly remember many excursions with my brother to this remote corner, sometimes in the midst of heavy thunder showers. Occasionally after long searching in the growing darkness it was impossible to find these perverse animals, who would shelter themselves perhaps in a clump of hemlocks and occasionally, when found, would take any of the many paths home rather than the right one. Once when we returned with them in pitchy darkness and in a severe thunderstorm when we could see the way only as the lightning flashed, I was rewarded by a very appreciative letter from my father, written while we were away, in praise of our courage and perseverance. I may add here that this was one of my functions in later boyhood at my grandfather's yet larger pastures, which began half a mile from the house. Here the task of finding, gathering together, and picking out the cows, steers, and oxen wanted from the other animals which were not to be driven home was one of my daily trials,

sometimes involving a tramp of several miles. I was afraid of some of these animals.

Besides this "chore" it was a distinct achievement when I was able, at six, to catch (sometimes no easy task even with a salt box) one of our steady old horses in the pasture, halter it, lead or sometimes mount it from a fence and ride it home, put on the harness and hitch it into the wagon alone, attaching and disentangling the lines and even driving from the barn to the house.

Besides the domestic animals I became greatly interested in wild ones and in birds, the latter interest being greatly stimulated by a large animal book with colored pictures describing perhaps thirty or forty of those most common in that region.[2] The Worthington home was sometimes infested with rats which would play havoc with the corn, ears of which covered the entire attic floor to a depth of perhaps a foot or more, and many were the fall and box and even wire and spring traps we set for them, one being a peculiar contraption with a spring that forced steel points into the body of the animal. It was a great delight to take a box trap containing one or more live rats into the open field, let them out, and chase and kill them with sticks. I even used to skin them, tacking out their hides on the barn, and at one time had quite a collection of these with which I intended to make myself a coat. I still have a little book of compositions written when I was six, every one of them on animals, the first of which was entitled "The Rat." All these devices, together with cats, arsenic, and other poisons, were only partially effective, however, against this pest.

A little later, when at the age of eleven I was reluctantly allowed to buy an old shotgun from a neighbor for $2.50, I found intense pleasure for years

[2] For my idea of the value of all this see my *Educational Problems*, vol. II, p. 405 *et seq.*

in spending my leisure roaming the pastures and adjacent farms in quest of game, often shooting at hawks and crows at impossible distances. This gun was a wonderful stimulus to my imagination for as I hunted, having read the life of Daniel Boone and many tales of hunting and trapping, I fancied every kind of wild beast and every kind of adventure with them. Occasionally my shots were successful, and I accumulated a large collection of trophies—tails and skins of squirrels; woodchucks; wings, heads, tails of crows; jays; one pigeon hawk; a weasel; a few partridges, etc. All these I kept in an old trunk, preserving them carefully in salt and turpentine, and took great pleasure in showing them to my mates. Once in the old shop we had an "exhibition," tickets for which we carefully prepared and sold for one cent. Here these trophies were displayed and several snakes hung up by strings. A tame crow which a neighbor had got from a nest when it was young was a source of intense interest and stayed with us until long after it was fullgrown, and there were squirrels in wire cages with a wheel, fish alive in tin pails, etc. It was also customary to bring the feebler young lambs and occasionally tiny pigs into the back kitchen and to partially raise them by hand. A girl cousin always had several of these artificially raised "cossets" which she reared to maturity and sold.

Once while shooting at a single crow in a tall and dense forest I brought down two. The crows were an unmitigated pest despite the effigies of men we stuck up and the twine that was always strung around every cornfield. They always came at dawn before we were up and sometimes we had to replant long rows of young corn. Mice, too, of several species, sometimes belonging to the jumping variety, were almost always found under every "shock" of corn and under every pile of sheaves of wheat, oats, and

barley, occasionally in the haycocks and even in the buckwheat field. The woodchuck was another pest, digging its holes on every side hill and pathing down the richest grass so that it was almost impossible to mow it. Many of these succumbed to our steel traps and occasionally we succeeded in drowning one out after pouring many bucketfuls of water into its hole. I may add here that only a few summers ago I shot sixty-three of these with a Winchester on my own farm in Ashfield.

Skunks, too, were rather common. An uncle of mine acquired the art—I know not how—of killing them without the unpleasantness usually attending any attack upon them. They were very deadly to chickens, often destroying a whole brood of them in the night, and to their oil was ascribed many medicinal properties. When I was very young I saw one and thinking it a "kitty" tried to catch it, to the intense grief of my family and especially my mother, for I nearly lost my eyesight for a time and the suit I wore had to be long buried in the ground. One night, while walking home from an evening spelling school with the young daughter of a neighbor whom I escorted, I felt something under my foot and stopped to pick it up, thinking she had dropped her muff or neckpiece. I somehow managed to conceal the results from my parents but the next day at school was singled out and ignominiously sent home, and my blue brass-buttoned Spencer jacket, and I believe the pants, too, that buttoned on to it, were never again wearable—again to the grief of my mother, who had made them.

Muskrats, too, abounded, and many were trapped in the streams and in a pond a mile and a half away. They were easy to catch by setting a trap in their paths and covering it very lightly with grass. Woodpeckers of several species and different sizes, from the yellow-hammer down, were thus collected and sometimes

crudely skinned and stuffed. One species which abounded in my boyhood, with a bright red topknot and much white and black, seems to have entirely vanished from this region.

I well remember, too, the vast flocks of passenger pigeons that flew in my earliest boyhood, sometimes almost clouding the sun and alighting in rows as thick as they could stand on the beech and other trees in the forest. These I used to shoot in great numbers, sometimes getting an alignment of a row of them and bringing down a number at a shot. Their nests consisted of only a few twigs so that the young, when nearly mature, often fell to the ground before they were able to fly, and these "squabs" made delicious eating. Now one of the mysteries of natural history is the complete disappearance of these birds from this country, so that the prizes offered of late for a single specimen have never, I believe, in any instance been won. Hunting hen's eggs was also great sport for we had no house for them and sometimes belatedly found nests in unsuspected places containing perhaps a dozen eggs, some already addled. An occasional perverse hen would nest among the willows or bulrushes ("steal its nest") instead of somewhere in a henhouse built later or under the floors of the barns.

Hawks, too, abounded, and I have often seen them pounce upon and carry off young chickens and occasionally seize, mutilate, and perhaps kill the mother hen. On one occasion, to my great surprise and delight, when I was nine I found a mink in my muskrat trap and my father sold the skin for $1.50. For years my ideal in life was to be a hunter and I took intense delight in my father's frontier stories, while my heroes were the young men in town who were most successful with a gun.

Almost every fall there were "squirrel hunts." Leaders were chosen who would select alternately the

best men, these two "sides" were pitted against each other, and at the end of a few days those who showed the most tails (a chipmunk counted one; a red squirrel, five; a gray one, ten) had a supper at the expense of the other side. As these rodents were a pest no voice was raised against the efforts to exterminate them. Occasionally there was a coon hunt by night. Several men would go out with a dog and when, generally near a cornfield, one was treed, it either had to be shot (my grandfather usually doing this with his old flintlock) or, if the animal took to a hollow tree and could not be smoked out, the tree was cut down. On very rare occasions bears were seen—once by my uncle on a distant fence-mending tour, but in my day or his I think they never were known to attack man. My father had many tales of deer hunting, preparing vension, etc., in the west. On one occasion I saw a lynx, which made that region a terror to me for years, and one of the neighbors shot a large wildcat. But neither the real nor the imaginary dangers deterred me from penetrating with my trusty gun into the most remote and dense woodlands.

Animals to me had a very definite character, and perhaps here the foundations were laid for my subsequent interest in animal and comparative psychology, which has prompted various experiments by myself and by my students in later years and on which subject I have for years given lectures. This, too, probably gave me my great interest in menageries and zoölogical gardens, which I have always frequented on occasion. I think I have never visited an American or European city that had an animal park without seeing it. I have always been interested in cats and still more in dogs,[3] although never, save

[3] G. S. Hall and C. E. Browne: "The Cat and the Child," *Ped. Sem.*, 11:3–29.
G. S. Hall and W. F. Bucke: "Cyno-psychoses: Children's Thoughts, Reactions, and Feelings Towards Pet Dogs," *Ped. Sem.*, 10:459-513.

on one occasion, was I allowed as a boy to have one of the latter. Although this was an object of perennial desire, my father always disapproved of dogs from an unpleasant experience with them. In general they had an aversion to me for I remember being bitten by one when I was seven, which made me always rather suspicious of them, although in maturer years I owned several and took great satisfaction in them. Thus one important boy interest was aborted in me.

The very old-fashioned New England farm, represented by such museums as those in Salem, Plymouth, Deerfield, and Boston, made an almost ideal environment for boys. When I was about three I told my first but, alas! I fear not my last lie. I came in with a large pailful of dandelion heads and told my mother with great earnestness that God came and said I must not pick my pailful of flowers but I did, adding, "I don't mind God sometimes." Obedience was the first of all duties, and disobedience summed up about all sins. To say "I won't" was almost unthinkable. My mother's commands were often sugar-coated by saying, "Now, Stanley, you want to do" so and so, and my worst recalcitrancy was by responding, "I don't wish to want to."

Water was an incessant temptation, and perhaps most of my early disobedience and feigned forgetfulness was in getting to it. We built dams, made water wheels and, with the help of an older boy, a sawmill which would cut a long marino potato; sailed little boats here and in the larger stream; waded; paddled, pushing each other in; went swimming, often secretly, as we could do behind the bushes or evaded the prohibition by keeping some upper garment on; dug deep pools in the brook by lifting out, as I remember, cartloads of stone; caught fish and kept them alive in the water-trough, cistern, and well, if they were not

much injured; were very cruel to the frogs, which were extremely numerous in a marsh near-by; reared polliwogs; occasionally wandered to a pond a quarter of a mile away and played in a boat that was always chained and belonged to a neighbor.[4]

Ballistics had with us a genesis not unlike that of the race. Before the passion for throwing abated we learned to hit stones with clubs to make them hum louder, tied short strings to them which we let go after whirling the stone, by which they were sent farther; and then, of course, came the sling, which was a veritable passion. One of the earliest amusements here was with sticks split at one end in which a tiny piece of wood like a shoe peg was inserted which we could snap out at some distance. Then came the elder popgun, always homemade and which if turned against a mate could hurt. Wooden arrows or darts thrown by a knotted string attached to a springy hemlock bough could be sent great distances by an expert. The bow at one time had its innings but with us was soon supplanted by the crossbow, which carried a very formidable arrow. To the latter we gave heads of melted lead poured into a paper tube in which a short nail or barb was solidified with the lead, and with these we sometimes brought down birds. But all this was superseded when the gun came. Why my people allowed this, and especially the small and then the large pistol which my uncle, who manufactured them, gave me and which I used rather freely before I was eleven, I do not know. I may say that there were no accidents but there were several very narrow escapes. I also remember making an effigy of "Bully" Brooks, who assaulted Charles Sumner, of Stephen A. Douglas, and other even local characters whom we were taught to execrate and

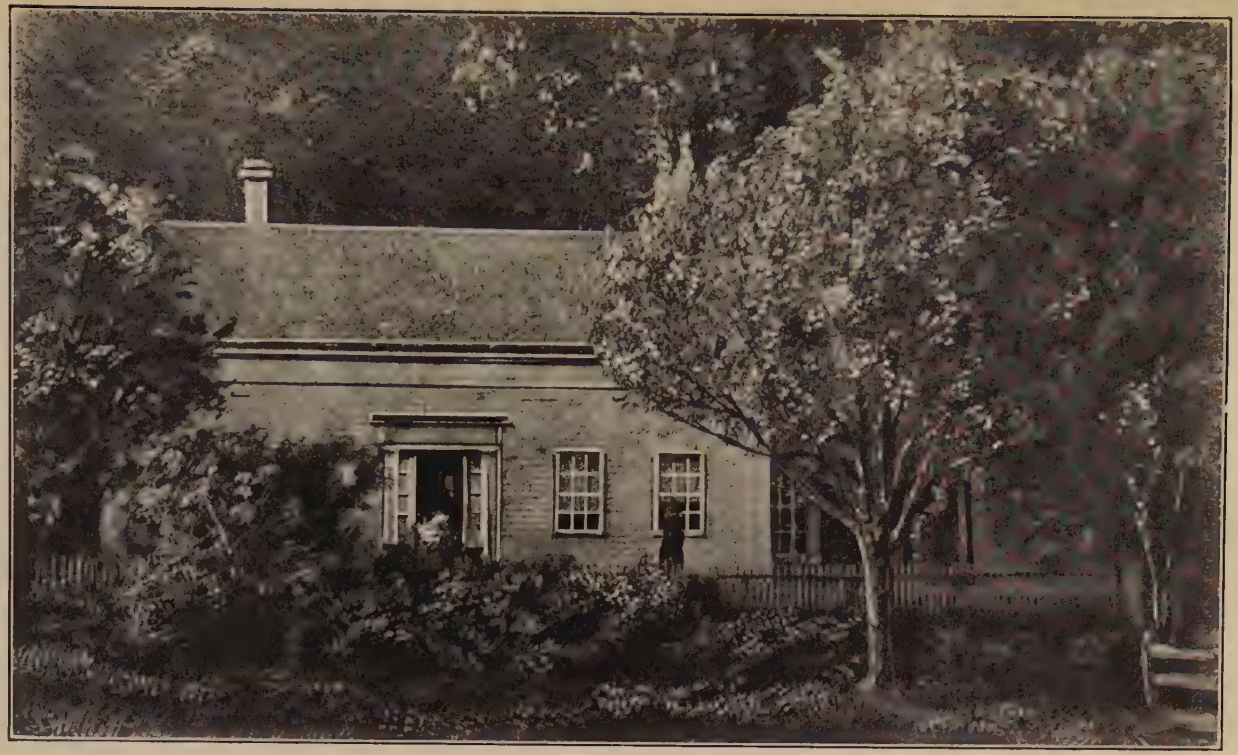
[4] F. E. Bolton: "Hydro-psychoses," *Am. Journ. of Psychol.*, vol. 10, Jan., 1899, pp. 169-227.

which we used as targets in a kind of mimic murder on the principle of savage magic.

Soon after the pincushion craze came that of weathercocks, and rude imitations of fish, roosters, boats, etc., were stuck on every building and many trees, if we could reach the top of them, and on the summit of poles which it was possible to climb. These were, however, superseded by tiny windmills which went with every breeze. Birdhouses at one time were mounted in the apple, maple, and cherry trees near-by, and a few stuck on poles, which bluebirds and wrens were fond of patronizing. The first playhouses were simple rows of stones for different rooms with sticks laid across for doors. Several of these structures were of snow actually roofed over, and many were the booths we built of willow tied at the top and called wigwams, in one of which I was once allowed to spend the night till I was frightened and came in during the small hours. Each of us had our own tiny plot in the garden.

I must have been a strange combination of adventurous boldness and of cowardice. I once had myself let down in a deep well in a bucket by a chain wound on a windlass to inspect the fishes I had put there. On one occasion, as the result of a dare, I lay down under the big church bell in the steeple, which deafened me with its din and swung within an inch of my body. I was a great climber and once fell off the barn and, as my father wanted me to believe, nearly broke my neck. It was common for boys to "stump" each other to taste forbidden and even the most repulsive objects imaginable, at least touching the tongue to them, and this I hate to remember.

From early childhood I must have had a propensity to run away. At any rate, I often did so and on one occasion was found wandering lost in the pasture after dark. We had stone duels, in one of which I

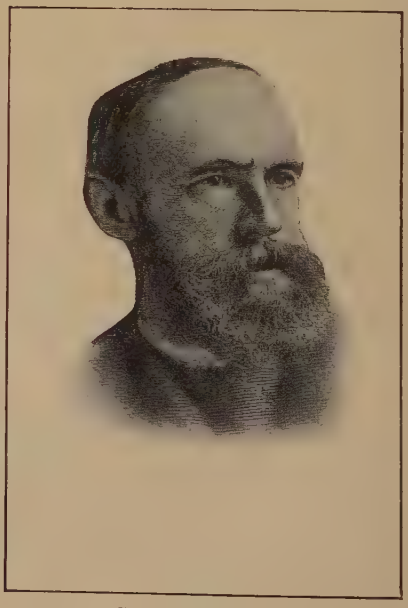


My Boyhood Home

G. S. H., ÆT. 14

G. S. H., ÆT. 22

G. S. H., ÆT. 35



G. S. H., ÆT. 45

was hit on the head and carried unconscious into the schoolroom and finally home, and the indentation still remains on my skull. On the other hand, I was a mortal coward about lightning, bulls, rams, and darkness.

Scrapbook-making, which consisted of pasting pictures, which we often painted in water colors, and gathering select extracts, was a favorite diversion. Half a dozen of these yet remain. We were allowed for this purpose to cut the illustrated paper, *Frank Leslie's, Ballou's,* advertisements, etc.

Coasting had a history of its own. First we slid on barrel staves, then on "jumpers" made of a stave with a short post surmounted by a crossboard for a seat; then came the homemade sled of two curved boards for runners with hoop-iron nailed on as "shoes," which was sometimes decorated. The seat of this we always padded with boot linings and rags; then came the "boughten" Ringville sled which was painted; then the double runner on which sometimes a dozen could sit and which was always getting out of order.

At one time all the children were drawing out the ravelings of various kinds of cloth so as to leave checked and other effects with only warp and woof alternating. But the day of the "sampler," which this suggests, was already passed.

At this period all children, some more some less, were collectors of many sorts of things.[5] I remember particularly collections of postage stamps, bits of broken crockery, buttons of every hue and size, and scraps of cloth of every kind and of no pattern for some imaginary bedquilt that was never made. One of my largest collections was of bits of wood, each about six inches long. I sought to gather specimens

[5] See "The Collecting Instinct" (by F. C. Burk) in my *Aspects of Child Life and Education* (N. Y., Appleton, 1921).

of every known kind of tree, including rare bits presented to me such as mahogany and lignum vitae, and had in all some one hundred specimens. Later I collected an herbarium of things that grew in Ashfield. Then, too, there were the birds' eggs of many kinds kept in a big box on cotton wadding, insects impaled upon pins, and a small collection of coins—nearly all pennies. To a different order, of course, belong the beech nuts, which were very abundant and of which we gathered pecks to be sold at the store, and in Ashfield there were chestnuts; while in the berrying season the order was, as I remember it, first snake-berries, then wintergreen berries, strawberries, raspberries of two kinds—red and black—blueberries, and blackberries, many of which were preserved. Elderberries, too, made excellent pies and so-called wine. At my grandfather's we gathered slippery elm, pine cones and, from the swamp, cords of pine knots, which made far hotter and brighter fires than any other kind of wood, and we always expected to lay in a supply of herbs. Those we actually gathered were pennyroyal, tansy, spearmint, peppermint, catnip, mugwort, motherwort, elecampane, burdock, aconite, arnica, lobelia or Indian tobacco, mullein, sorrel, comfrey, flag, and witch-hazel, and my grandmother also remembered when they had scratch-grass, valerian, larkspur, mallow, plantain, anise, arrowroot, yarrow, balmony, tag alder, and bloodroot in the house. These constituted, most of them, the family pharmacopœia and were each "good for" some distemper; only when their usefulness was exhausted was the doctor called.

Once, working occasionally for weeks or perhaps months, we boys dug a well so deep that it became dangerous and, to our great grief, had to be filled. The kite and marble mania entered but I think played only a very small rôle in my boyhood. One of the

outbuildings, a large shop, was almost entirely covered inside, from the ridgepole down, with pictures large and small pasted on at intervals for years, and here they stood for decades until the building was burned down a few years ago. I was taught "old sledge" and euchre in a safe retreat over the horse-sheds one Sunday by the minister's son while his father was preaching. He was found out and punished, while I escaped.

Three great schools of the imagination were freely open to us. One was the frost on the window panes in which we saw all kinds of fancied objects which by scratching we brought into closer resemblance with the objects they seemed to suggest, a few of which I remember vividly to this day.[6] Then there was the cloud scenery, especially in the far perspective where forests receded and allowed us an open view of the west, where we saw battles, monsters, angels, and on two occasions corpses.[7] A third source was the open fireplace, where not only in the dancing flames but in the dying embers we saw many of the things children have so often fancied. In flowers we rarely saw faces and I think did not give them the characters so often ascribed to them and sometimes reflected in their names in the way Miss Thayer [8] has described in her interesting anthology. Trees, however, did have, some of them, a very individual character which I could even now describe in some detail.[9] How we should have profited by the present cult of Arbor Day!

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[6] "Children's Ideas of Fire, Heat, Frost, and Cold," by G. S. Hall and C. E. Browne, *Ped. Sem.*, 10:27-85.

[7] "How Children and Youth Think and Feel about Clouds," by G. S. Hall and J. E. W. Wallin, *Ped. Sem.*, 9:460-506. See also *Day-Dreams*, by Theodate L. Smith.

[8] "A Study of Children's Interest in Flowers," *Ped. Sem.*, 12:107-140.

[9] "Dendro-Psychoses," by J. O. Quantz, *Am. Journ. of Psychol.*, 9:449.

A dark closet with no windows always seemed a little awful because it was associated with Bluebeard, who here slew his wife amidst a lot of dead ones. A spot near an elm in the pasture, otherwise unmarked, was where the demon in the Arabian Nights escaped from the bottle. A steep acclivity in the mow land with rocks and scrub trees was Bunyan's "Hill of Difficulty," and a boggy place in the cowpath was the "Slough of Despond." Moses lay amid the bulrushes behind the willows just below the dam. Understanding that an altar was a large pile of stones, I pictured Abraham about to slay Isaac near one in the east lot, and no experience of my real life is more vividly associated with that spot. Not seeing very many pictures I made them, and the features of this farm were the scenic background and setting for many an incident and story. Everything read to me was automatically located. Mrs. Southworth's stories, which I conned furtively in *The Ledger,* all seemed to have been laid out on this farm, with the addition of a few castles, palaces, underground passages, dungeons, keeps, etc. The "Sleeping Beauty" was just behind a clump of hemlocks. Under a black rock in the woods was where the gnomes went in and out from the center of the earth. My mother told me tales from Shakespeare and I built a Rosalind's bower of willow; located Prospero's rock and Caliban's den. Oberon lived out in the meadow in the summer but could only be seen by twilight or in the morning before I got up. There was a hollow maple tree where I fancied monkeys lived, and I took pleasure in looking for them there.

Children had some part in almost all the activities on the farm, which combine so many elements of the physical, industrial, civil, and religious life of the citizen voters contemplated by the framers of our political institutions. Thus we went back to sources

and made contact with the fresh primary thoughts, beliefs, feelings, and modes of life of the race or of simple, homely, genuine, primitive, men. From this our higher anthropology always strives to take a fresh start in the original *Ethos, Muthos, Nomos,* and *Logos* of mankind. For instance, in woodwork we had each our own team in the logging camps, were familiar with the whole process of making "rive shingles," saw the process of making ax helves, for which each maker had his own style as distinct as that of the painter or poet. There were butter and sugar-paddles, mauls, beetles, and even birch brushes and brooms made by stripping down the filaments of the wood which represented the successive years' growths, to say nothing of troughs, salt mortars, pokes for unruly geese, hogs, sheep, and jumping cattle. Even ox yokes of ash, and oak ox bows bound with withes were made. The whole process, too, of the manufacture of hemp from the sowing to cutting, breaking, hatcheling, hanking, spooling, and weaving, was a domestic industry that was not extinct in my boyhood. The same was true of woolen, every stage of which from shearing (an expert doing his twenty-five head a day) or the pulling of the wool from dead sheep, a very offensive task when they were found in the pasture perhaps weeks after they were defunct, we saw and sometimes took part in. The "rolls" had to be carded elsewhere but were spun indoors, then reeled into seven-knotted skeins, five or six of which constituted a good day's work. Thence they went to a great dye-tub in the chimney corner. Butternut bark for everyday suits, indigo for Sunday suits, and madder for shirting was the rule. There was much fancy dyeing for contrast effects. Then the warp had to be very carefully spooled and transferred to the warping bars, whence it had to be thumbed through the harness and needled through

the reed, and then a "piece" was said to be put in and the weaving began. Nubias and sontags, even men's gloves and clock stockings were knit, while the shag mittens were made from the thrums or the left-over ends of the warp.[10]

We had the run, too, of various shops in town. In one, canes were made and we knew the process so well that in that shop I could repeat it. We ran among the vats of the tannery and saw the various stages of making leather out of raw hides. Every hemlock tree cut down was skinned with a "spud" and the bark piled in cords to be ground for the tannery. We watched the cobbler, too, at his bench. One family largely supported itself by making baskets, splitting out the ash strips from trees they had felled themselves. There was a harness and saddle maker who allowed us to watch him at his work, as did another citizen who made his living by extracting and selling essences from plants he gathered. We were familiar not only with the several sawmills and grist-mill but with the three local factories that made, respectively, sieves, broomhandles, and planes. There was a blacksmith's shop, and I remember at least one visit each to the establishment of a cooper and a wool-carder. One neighbor made birch vinegar, and several had small carpenter shops. In the southern village there was a tin shop, and my father remembered a pottery there.

Where men gathered rainy days, evenings, or Sundays, as they often did in the shed or barn, there was endless gossip (one of the foreschools of psychology) and a great many very apposite stories illustrating human character and incidents. Very often these tales were immemorially old but ascribed to some "granther" or "uncle" and eccentricities seemed

[10] See "Boy Life in a Massachusetts Country Town" in my *Aspects of Child Life and Education.*

to be particularly dwelt upon. Some of them I have sampled in my "Boy Life in a Massachusetts Town" just referred to. One neighbor, I remember, used to say that he would take anybody's wager that he could tell two hundred "minister stories." Everybody appreciated especially a good "grind"or "rig" in which the fool's cap was clapped upon some one present who must defend himself or retort as best he could. Everyone knows the pithy humor of which the typical Yankee is often capable.

If gossip is, in any sense, the foreschool of psychology and especially characterology, the atmosphere in which I was reared was favorable, for there was incessant discussion of real motives and much analysis of personality, and endless criticism which, on the whole, favored public and private morals. The homely anecdotes that were retailed were very often of eccentricities, which are far more common in rural communities and perhaps among elderly people. I never wanted to miss the congregation of men of the neighborhood who so often stole together of a rainy or Sunday afternoon in my uncle's long shed where, sitting on the grindstone, chopping block, bench, manger ledge, wagon tail or seat, or the long high step that led to the pigpen, some perhaps whittling and some of them chewing tobacco, sticks, or straws, they passed the joke and sometimes the "buck" along and each took his turn in contributing to the edification of all. It was here that I heard of an old character long since defunct, L.W., who lay drunk overnight in the ditch and, on coming to himself, found two dead snakes that had bitten him and died of the effects, suggesting the old distich of some classic author, "An adder bit a Cappadocian's hide, but 'twas the adder, not the 'Cap,' that died."

In my grandfather's youth, after a sheepshearing four men pushed out to the middle of the pond and

one was so drunk that he kept rocking the boat. When cautioned, he cried out, "We'll all be in hell in five minutes," rocking it the more until he did upset it. Three were drowned and their bodies, clinging together, were recovered by a mystic stranger who appeared on the spot, dove for and brought them up, and then vanished, so that no one ever knew who he was or where he came from. There was the old chestnut of a young minister, new in town, who, according to custom and as a joke, at the close of the town meeting was elected hog-reeve for the ensuing year and accepted gracefully, saying, "I supposed I came to town as a shepherd of the sheep but have it your own way"; of a good old man who had lately been converted and enthusiastically clasped the minister's hand at the close of the service and told him he preached a "damned good sermon"; of another clergyman who began a discourse on a very hot day, wiping the perspiration from his forehead, thus: "This is a damned hot day—such was the expression that fell upon my ears as I entered the House of God" and proceeded to denounce profanity; of old "uncle" N.E., a noted horse jockey, who when worsted in a trade called all the members of his household together, as if to family prayers, told them that his neighbor had cheated him out of ten dollars, and exhorted his own sons to get it back out of the sons of the neighbor or, if they did not, to teach their grandchildren to get it back from his. But later, after another trade which he effected with the same man, he assembled them again and lifted the obligation, saying that he had made everything all right himself; of old "uncle" G.V., who when a young man was said to have called upon a deacon of the church and asked him to "publish" the next Sunday his banns with Miss A., took his departure but shortly came back to say that he had decided to substitute Miss B., leaving again but

returning once more to say that he had decided on Miss C., whom he did marry; of the same man, who had an ignorant negro who agreed to work for him for one hundred years, at the end of which the tables were to be reversed and "uncle" G.V. was to work for him. This darky was cured of the habit of sucking eggs by being shown a nest of them put surreptitiously into his bed after he was up in the morning and made to believe he had laid them, and was helped to contentment by carrying on a correspondence through G.V.with a beautiful but fictitious Nancy in the south whose effusive love letters G.V. used to pretend to read to him and to take his no less effusive replies.

There was the story, too, of Stephen and Ann. They were courting one Sunday evening in the kitchen (which contained but one chair and yet no one was standing) when she suddenly asked him if he was not tired of holding her. He gallantly replied, "Not a mite, Ann, keep right on settin' just where you be. I was powerful tired an hour ago but now I'm numb." P.M., another old character in town, was said to have "crept up, all unbeknown" to his best girl one evening, with the salute, "Well, Sal, feel kind'er sparky tonight?" to which she coquettishly but encouragingly replied, "Well, I reckon p'raps a leetle more sorter than sorter not"; and a little later they rode many miles on the same horse, she on a pillion behind, and were married. There was the story, too, of the old cat ground up in the gristmill with dreadful caterwaulings, so that two bushels of good rye were required to grind the mill clean again; the tale of the Baptist deacon who would not pay his tax which the town exacted for Congregational preaching so that his apple trees were dug up by the constable for payment; and of how he came home from the General Court in Boston with a barrel of cider brandy drawn

on two poles strapped together, one end of each in the holdbacks of the harness and the other ends dragging on the ground, and how he sold this in a pint measure, always inserting his big thumb by way of economy. There was the tale of old Sloper who vanished mysteriously and the long persistent rumors that he had been murdered by a prominent but not very well-beloved citizen.

One interesting illustration of mythopeic tendencies in such communities was the following. A very intelligent old man called me in to his bedside, as I was passing, and confided to me almost in a whisper that his ancestors in the very remote days of history had cheated mine by hiring Indians to dig with sharpened sticks all through a dark rainy night at a certain place so that the Deerfield river, which used to flow through Ashfield village and was the boundary between the two holdings, had been turned northward into its present course. I have since been told by Professor Emerson, the geologist, that in some very remote geological age such a change of river beds probably did occur. How such a belief had been inculcated in my friend and why he should charge me never to reveal it until after his death is a mystery.

Much as novelists like Mary Wilkins have exploited the humor and pathos of the Yankee life and character, I believe there are many rich veins of it yet to be explored and that it was marked by a homely sagacity and a kind of intuitive feeling for and appreciation of character that is more or less unique.

I shall never forget my first day at school. I was not only a bashful boy but had heard so much of school discipline that I was in great fear of punishment, and it was, therefore, with much trepidation that I started for the school a mile away, at the age of six, led by a much older girl pupil to whose care my mother committed me. My parents had already

taught me to read and write a little so that I was more advanced than those of my age, but this did not count and I had to begin in the lowest class and sit on one of the front deskless seats.

In this day the school district, of which there were twelve in Worthington, was an autonomous unit. The parents met in the schoolhouse and chose a prudential committeeman for the year from the district whose chief duty it was to find and engage a teacher for each term, of which there were always three and sometimes four, with often as many different teachers. At this meeting, too, the job of supplying wood, which must be of a certain kind and length, was given to the lowest bidder. The older boys took turns in making the fire in cold weather, which required them to go to school an hour earlier than usual, and this appointment was given out each day for the next and the boy thus chosen was given the key.

The district schoolhouse was also, especially in the warm weather, a place of religious meetings late Sunday afternoon. The districts to have such service were given out every Sunday by the minister, who appointed some parent in the vicinity to lead the meeting, occasionally attending it himself. These were generally fully attended and consisted of singing, prayers, exhortations, and "remarks." The schoolhouse was also used as the place of evening meetings of various kinds, particularly spelling classes where "sides" were chosen and the prize was given to the side that spelled down the other. Often the speller to be used was given in advance so that the experts could prepare for the ordeal, but sometimes anything was allowed which was in Webster's dictionary, to consult which in cases of disputed spelling some one was appointed. Again, there were rhetoricals in which the children spoke pieces, learned little dialogues and songs, and in which older people also

volunteered readings—more often, as I remember them, comic—and sometimes a school paper was prepared. Both these gatherings were presided over by the teacher. In several of these schools there were debating societies formed in which the parents took part. The question was decided upon the week before and individuals were appointed to open the discussion, which was then free to all, with a verdict rendered at the close by an appointed committee, first on the merits of the question itself and secondly on the weight of argument, which was often on the other or wrong side. In these gatherings my father always took an active part and there was often great interest, the schoolhouse being packed to overflowing. When I was twelve or thirteen I once took part in such a debate on the opposite side from my father, and a jocose member of the jury committee, notorious for his teasing propensities, went out of his way to say that I in some points had bested my father, which was of course preposterous but, I thought, annoying to him.

The teachers were usually selected from the town or one adjoining, for it was a very common practice for young men and, still more, young women who were able to teach school, which was somewhat more dignified than "working out," often the alternative. In Worthington I had access to two different schools, and in Ashfield to five of them which were nearly equidistant from my home, so that in the six or seven years of my attendance at these schools I had nearly a score of teachers. When I was fourteen I wrote a history of my school life, covering twenty-four foolscap pages, which is still extant. Here I find recorded in their order my impression of seventeen of these teachers. This record showed chiefly my very definite attitude toward their personality. In later years it would have been entirely impossible for me to recall

the names of most of them. Some were hated and detested, others loved and respected. The only teacher who ever flogged me (and it was for a fault I had not committed) I dubbed "old red-nose" because she had a fiery temper which inflamed that organ. In my sketch nothing whatever is said of any of my studies but the character of the teacher and his or her discipline are always noted in a grotesquely wise-acre way, and many pranks are described.

In the treatment of the schoolhouse and its surroundings we were vandals. The first schoolhouse I attended is still standing as it was. The desks were carved by the jackknives of generations of pupils, especially on the boys' side. There were rude initials deeply indented, and the walls had to be whitewashed often to obliterate pencil marks and drawings. At the end of a term the rounded ceiling of the room was covered with chewed paper wads which it was a favorite diversion to throw and make stick there. We tore up the floor in the wood-room and raised havoc in the cellar, while the outhouses, both that of the girls and boys, were indescribable. We tore down stone walls, too, to make playhouses. We were often allowed to decorate the windows, teacher's desk and blackboard with boughs and trim them with flowers and vines. Sometimes a pupil was appointed to provide the teacher's desk in summer with a "nosegay" the next day, and the stove, too, in summer was often covered with flowers and the stovepipe twined with a kind of creeping vine, for which purpose even hop vines were often used. We all brought our dinner and ate it together, often swapping dainties with each other. There was much trading, too, of pencils, jackknives, and particularly of toys, for which every scrap of lead was in great requisition.

Of school games the favorites were tag, hare-and-hound, which involved long cross-country runs with

bits of paper thrown as "scent"; pompom pull-away; one-and-two-old-cat, a form of ball game; goal; to say nothing of hoops, tops, etc., many of which were taken away from the pupils when they were found in use in school time and locked in the teacher's capacious desk for one or perhaps several days before they were given back. "Cat's cradle" was a favorite diversion and very highly developed. There was a great deal of fighting, and every boy in school knew just who could "lick" him and whom he could lick. Sometimes two boys had a "set fight," and I remember one with a mate, C.K., in which we hit, struck, kicked, pulled hair, etc., for an hour, while all the children stood around and took sides, and we both went home dilapidated and exhausted. Neither admitted, however, that he was whipped although the fight was several times renewed without decision. Squarehold wrestling was common everywhere, not only in the school but in the village, where often older men indulged in the sport and occasionally, *horrible dictu,* in horsesheds Sunday noons. In this contest each grasped with one hand the collar and with the other the elbow of the antagonist, each must "play up," and there were various trips (knee hold, toe hold, cross trip, side trip, etc.). Two throws out of three meant victory.

School exercises always began, after roll call, with a brief Bible reading in which each pupil read a verse, and at the close each was obliged to say one from memory. "Jesus wept" was a favorite on account of its brevity and it was never disallowed. Then came the reading classes, beginning with the lowest primer class and ending with the highest in the *Village Reader.* Then came geography, arithmetic, perhaps grammar with parsing, perhaps twenty minutes for the writing lesson in the copy book, and the forenoon closed with the spelling classes, in which we always

"took places," with a good mark for standing at the head for a day. The afternoon exercises were precisely the same. Occasionally an advanced class began Worcester's *Universal History*. Arithmetic was always given most time and was the hardest. Every term we began House-That-Jack-Built fashion and usually got a little farther at the end than we had gone the term before. Very common were the Colburn exercises in which sometimes the whole school indulged. They went in this fashion: take 4, divide by 2, multiply by 6, subtract 2, multiply by 20, subtract 100, etc. Some of these stunts were very long and rapid. They were, however, very popular, and the more advanced students often became quite proficient in them. When I was a little older, a few teachers introduced algebra into the Ashfield schools, and when one of my aunts was the teacher, as was several times the case, I used to be severely drilled by her in this and in advanced arithmetic at home in the evenings. One teacher here long tried to make cube-root plain by a block of wood which she built to larger dimensions on three of its sides by seven smaller blocks. This I learned to do mechanically but entirely without understanding it. One teacher tried to start a class in botany; and another, one in Latin.

Among the scribblings of my youth I find preserved nearly a dozen lists of names of my fellow-pupils in various district schools I attended. Of many of these I retain some knowledge or even acquaintance from the summers spent in these towns. Not a single one of them all, even those who attended the higher select school or academy, ever went to college. Many settled at once on the parental acres. Others did so after various excursions into other callings, and some went west. Three have been very successful in business, and two are, I suppose, millionaires. A great majority of them, however, are now dead, and another

surprise in conning these lists is that so many of them died young, indicating lack of stamina connected probably with the race suicide which is perhaps better illustrated in this region than anywhere else in the country, if not in the world.

My father and mother both used to sing together at home when we were very small, and among my first recollections is that of some of the old ballads and church tunes, my father singing bass and my mother, sometimes sitting in his lap, singing treble, with which we were thus made familiar. I recall, too, the rather thick book of secular tunes, now lost, I believe. It was called *"The Vocalist"* and contained serious, sentimental, and also a few comic songs. My father, too, had some slight skill on the violin. When I was very young, both my brother and I were given a flageolet, and before I was large enough to hold the violin under my chin I began to play a number of church tunes which, to my great mortification, I was sometimes called on to play before company. We also performed crudely on the jew's harp, the harmonica, and on the "bones," the latter very carefully carved of oak and ash while some were made of the ribs of beeves. Of these I at one time had quite a collection. At the age of perhaps eleven or twelve I bought an accordion which I earned, not by reading the Bible through as I did in the case of my skates, but by braiding the sides of two hundred and fifty palm-leaf hats at a penny each. On this I learned to play over a hundred tunes, the names of which I find written in my own hand and, which, I think, were always secular. With this on one or two occasions I surreptitiously officiated as musician at dances at neighbors' houses, although my parents strongly disapproved. The family fiddle was given my grandfather by a pauper from the town of Hatfield who was allowed to tour the adjacent towns among people

who would keep him overnight to enjoy his skill with the violin and to whom my grandfather was very kind, nursing him through his last illness until he died under his roof. A few years ago I rediscovered it in a closet in an old house that had fallen down on the place. It was somewhat broken but I had it repaired. It is a Stephens, with the back and sides made of bird's-eye maple, and I have been offered five hundred dollars for it. My skill on this instrument coincided with and just about equaled that on the accordion. Many were the tunes I played, although my performance was of the very crudest kind and mostly by rote.

When I was fourteen I became enamored of the piano (having whittled out a full seven-octave keyboard on an old table, on which I first practiced), and my father, with great reluctance, bought one and I was allowed to take lessons for one or perhaps two years. Although I practiced with great assiduity I had neither the hand nor the mind of a musician. My *chef d'œuvre* was a rather halting performance of the several movements in Beethoven's *Sonata Pathetique*. Later in life I was just able to earn five dollars a Sunday by playing a melodeon in a mission church in New York, and still later sometimes officiated as organist at Antioch College. Though I was never able to attain the least virtuosity as a performer, all this gave me a profound appreciation of music and in Germany I became an enthusiastic admirer of Wagner, and have always attended operas and concerts when it was practicable to do so. Indeed, music has added greatly to my joy of life, and even at the present writing I take great satisfaction occasionally in my pianola and Victor, for both of which I have several hundred records. Music is the language of the sentiments and feelings almost as much as speech is that of thought, and although I have not the slight-

est claims to being a connoisseur I am always profoundly moved and affected by it, as my father was.

Along with this, I think near the dawn of puberty and in common with several other boys I knew, clog dancing, often with performance upon the "bones," was very much in vogue. A group of us taught each other various steps copied from the strolling negro minstrels, and it may be that in this way started the interest which I have theoretically and practically had in dancing and in rhythm, which was a subject of several investigations made at my Baltimore laboratory. Nothing on the variety stage gives me such pleasure as a good and original performance of this kind, and I have followed the literature on the subject and always advocated the practice of dancing in its higher forms as an important factor of general culture. In my courses on education I have given a prominent place to the history of the dancing [11] and have often been able to do something to introduce folk and other kind of dancing into our educational institutions.

I hesitate to confess here, although I must do so as a scientific psychologist, that I have a very highly developed rudimentary organ in my psychophysic make-up which must go back to my early musical ambitions, for to-day if I sit down and strum the piano, which I sometimes do if I am alone and there is no one in the house to hear me and I am tired, and if it is evening—for that helps—my fancy takes wild flights. I am a great performer playing either at a concert to admiring and applauding crowds or else surprising a little circle or perhaps some individual friend by suddenly coming forward and displaying a wonderful capacity as a performer which I had hidden from the public up to that triumphant

[11] See various sections in volume II of my *Educational Problems*.

moment. I often catch myself in these reveries with a start and laugh at the ridiculousness of it, and wonder whether if I were insane with the delusions of greatness I should not try to act out just such a scene and force myself thus upon a disgusted audience if I had a chance.

Declamation had a place somewhere in every school and played an important part in the little evening school often held by my father and mother at home. I could not have been more than six or eight when I had to march out on the floor, turn in a curve like a fishhook, make a formal bow, and spout pieces like "On Linden When the Sun Was Low" and "The Boy Stood on the Burning Deck," etc. There were several "speakers" or books full of oratorical selections, and often the reading books were entitled, *Reader and Speaker*. In the earliest days I detested, but with the dawn of the teens began to love this exercise, and as I now turn over these old anthologies of rhetorical gems I find many familiar faces, most of them saturated with the spirit of adventure, mawkishly sentimental, or perhaps lurid with passion. Spartacus' address to his fellow gladiators, a poem entitled "Rum's Maniac" in which it was thought necessary to act as a man in delirium tremens is supposed to do, alternated and gradually merged into better selections from Daniel Webster, of whose orations we had a volume in the house, as we did of Sumner, the gems from Anson Burlingame, Edward Everett, William Lloyd Garrison, and others. How I used to make the woods and pine groves ring, sometimes frightening the cattle and occasionally being overheard and then overwhelmed with derision, shouting these eloquent passages by way of practice. I had been commended for excellence here and it nearly turned my head.

At fifteen and sixteen I began to write "orations,"

the whole or a part of more than a score of which are still preserved and some of which I have not been able to read without feeling that I came near being a victim of dementia praecox. The written speeches are on a great variety of topics—The Pen and the Sword; The Head and the Heart; The Future; Philosophy; The Curse of Slavery; The Demon, Rum; The Art of Declamation; The Evils of Ignorance; various war subjects (this was at the time of our Civil War), etc. Nearly all these effusions are composed in the most florid style with a passion to be eloquent, and the more elaborate ones always begin with a paragraph or two of disproportionate length expressing my incompetence to handle so big a subject before the vast and imposing audience which I always imagined before me. Here first I had very florid but very secret reveries of fame and envied the laurels of the great masters. The crudity of it all was ineffable, the style stilted to a degree, and the only good this craze could have done me was that it did prompt me to read many orations—chiefly, however, to pick favorite passages. When I was fifteen I once walked eighteen miles to the neighboring town of Greenfield, and stayed the night there, to hear Charles Sumner, one of my ideals, and words cannot express my thrills. He seemed to me a god-man with a voice and head like Jove, and I am sure I was far more impressed by the music of his resounding sentences than by any ideas or even sentiments he expressed. My "sentence-sense" did, however, receive from all this craze an extraordinary development.

This fad partly lapsed of itself and partly was ruthlessly crushed by my intense diffidence and mortifying failures, after all the Ashfield successes, when I went to Williston Seminary to finish my preparation for college and joined the debating society there, and heard so many in my own class who so far surpassed

me that I never once ventured to "appear before" them. In college, however, I mustered courage, was elected to take part in an interclass debate, in which I made a ridiculous fiasco, forgetting everything I had planned to say, although I rallied and was made class or "moonlight" orator at the close of the sophomore year. And it is not until lately, even after many summer trips sometimes of two months of week stands at half a dozen or half a score summer schools, speaking twice a day for several decades, that I have escaped some degree of initial stage fright. I have also reacted from the rank gesticulation and fiery action which characterized the juvenile period to a very quiet informal conversational style, with almost no gesticulation.

The memory of one sophomore peroration still haunts me. It ran thus: "To thee, oh future historian, we commit the issues of the present hour; and when thou hast recorded the completion of what is therein begun, close thy volume and break thy pen for all men have read our future history, for it was written more than two thousand years ago in the prophecies of millennial brotherhood." My every phrase had its gesture: for the past I pointed backward; I broke the pen and closed the volume in pantomime; I raised both arms with hands supine in addressing the future historian; I scribbled with the fingers of my right hand at the word "recorded"; I extended both arms to the utmost for "all men," for eloquence at that stage was gymnastics and it was thus we were taught. Thus this muse of my boyhood has taken on many aspects.

For terms and years at the Wednesday afternoon "rhetoricals" in all the select-school-and-academy stage it was customary to choose some member of the school to edit and read what was called the school "paper." Of these, when my turn came, a number of

specimens are preserved, bearing such titles as "The Medley," "The Classic Gem," "Vox Populi," "The After-Thought," "The Chip-Basket," "Miscellany," etc. It was the duty of the editor, who read the paper to the class, to solicit what contributions he could from the pupils and supply the rest himself, always including an introductory "editorial" commenting seriously or humorously upon events of current interest in the school, town, or even nation. These consisted sometimes of crass expressions of would-be lofty and judicial thoughts on life and the *mores* generally but were prone to lapse to comic descriptions of picnics, previous exercises, "machine poetry" coupling the name of a boy and girl, as "First they come and then they tarry, Jennie Jones and Johnnie Barry." There were also frequent prophecies of what individual schoolmates would become when they were "grown up," conundrums, proverbs, occasionally efforts at original poetry, but never anything religious. It was essential that these sketches should be pithy, pointed, and not too long, and mild satire at the school exercises and even at the teacher himself was not taboo. There was always much comment on the comparative merits of these "papers," and every editor laid himself out to do his best. Occasionally fine writing was attempted, perhaps under the influence of the teacher, who sometimes made a contribution. On the whole, I think these exercises were an excellent stimulus to literary effort, and they certainly do express more or less the morale of the school, which like the quality of the teacher varied much from term to term and from teacher to teacher.

Most voluminous of all in the stage of advanced rural schooling were my attempts to write stories. These were never intended for the school or for any public but were personal and private ventures. Most of them are written under the influence of the *Phila-*

delphia Ledger, which was then publishing serials by writers like Sylvanus Cobb, Jr., Mrs. E. D. M. Southworth, and others of that ilk. The spirit of adventure and of sentimentality to a melodramatic degree ran riot here. The *Ledger* was taken by one boy who for years passed it around to several, of whom I was one, each installment of each story being awaited and conned with the utmost interest. This had to be done surreptitiously, however, for this kind of reading was under censure by my parents, so that I read it nights, with my door locked and the keyhole covered with a handkerchief, when I was supposed to be abed.

To be able to write stories like these was long the supreme goal of my ambition, so that I find among the contents of the old yellow chest, which my mother long made the receptacle of everything we children wrote, not a few efforts of my own in this vein, bearing such titles as "Black Tom, the Outlaw," "Queechie Link," "The Robbers of Ohio," "Crazy Jack," "Peter Snooks," "John Katz," "Jim Nimshi," "Delia Tingleson." The most elaborate of these was entitled "Ralph Burton," which covered a quarter of a ream of closely written foolscap, in seventy-five chapters. Most of these were begun but not finished. Some were short; others, long. Nobody ever read them to my knowledge (nor did I wish it) except a girl cousin whom I allowed to see the longest of them. She claimed to have read it (though I was always skeptical of this, especially in view of the difficulty of deciphering my chirography) and pronounced it "splendid." These tales were full of grotesque and impossible characters and events, with hairbreadth escapes, burning, passionate love at first sight, castles and underground keeps and dungeons, tortures, mortal combats with foes and wild beasts, saintly and exotic virtue, loud-mouthed taunts and defiance hurled at doughty and superior foes, tricksters, satellites, spies,

hunters and frontiersmen, caves, fabulous wealth, voluntary starvation, and were calculated to play upon the whole gamut of human emotions. But everything was inexpressibly crude, fragmentary, incomplete, often clumsy in expression, and, alas! often with bad spelling and in execrable penmanship, always the despair of my father.[12] This fad, though it lasted several years, seems to me rather an excrescence and I think it left little trace in my mind unless it is some taste for the lurid and melodramatic on the stage and in novels, which I have almost all my life read the last thing before or after retiring, often with a lamp and latterly with an electric bulb at my bedside. This makes a good night cap, especially if one has worked late and hard.

In the Ashfield higher schools we had a good start in Latin, Greek, and Algebra which gave us a sense of esoteric superiority because here our parents were not able to help us and we felt that we had entered upon an education that was really "higher." We had a severe drill, especially in Andrews and Stoddard's

[12] Being somewhat unusually long versus broad-headed (dolicho versus brachicephalic) I have come to connect my clumsiness at the piano, at shuffling cards, my bad penmanship, invincible slowness on the typewriter, etc., with this cranial conformation. My arms are strong enough but less so than my legs, as was the case with my father, and I used to excel in leaping, vaulting, and running; while my son won the prize during two years as the all-round strong man of his college, Harvard, and the other New England colleges, and also in pole-vaulting although he weighed nearly two hundred. If my brain should be examined at my death I am sure that the left will be found to be less developed or more atrophied than the right hemisphere for the attacks of migraine to which I have been occasionally subjected are more severe on that side. On the other hand, the speech centers are there and my command of language is not deficient. I have, too, an unusual ambidexterity, being, however, fundamentally left-handed. Till I was eleven I wrote with my left hand and was then made to change, to the permanent detriment of my penmanship. I have taken drawing lessons but proficiency here has always been out of the question so that even the simpler diagrams for my lectures have been made on charts prepared beforehand under my direction. I bat, throw, and am strongest in the left arm and the right leg. Vision is strongest in the left eye and audition in the right ear. The hair on the left side grew gray earliest. All the relatives I know of are definitely right-handed. Thus I fancy if I should ever suffer hemiplegia it would surely be in the left hemisphere.

Latin and Goodwin's Greek Grammar, and were required to give, when challenged, not only the rule itself, which was often very elaborate with lists of words which were exceptions, but also the number of the rule in the book. Another more elementary exercise that has gone out of vogue was parsing and analysis according to Greene. Term after term classes of older pupils began to parse Milton's "Paradise Lost" or Pope's "Essay on Man," each term going a little farther than the one before but always starting at the beginning with each new term. Each phrase was an adjective, objective, or verbal element—of the first class if a single word; of the second, if there was a preposition and its object; of the third, if it contained a subject and predicate, and the lingo was —"man," a noun, because a name; common because a general name; third person spoken of; singular number, meaning but one, but collective because it is a general name; objective case according to rule 16, etc. Often long discussions arose on subtler points of grammar, meaning, and sentence structure.

Very early in life I was required and formed the habit of making brief epitomes of books that I had read that were not novels, and it was, I think, in this connection that I had another craze. We had studied Worcester's *Universal History* and, I believe, had been introduced to Weber's still larger work. At any rate, it was here that I conceived the idea that I should like to be an historian and specialize in this field. I read and epitomized many of Plutarch's *Lives* and dabbled a good deal in Bancroft, Hume, Macaulay, and even Gibbon, and of parts of these I find many crude epitomes. A rough and elementary historical atlas fell into my hands, and in my first attempts to purchase books for myself and to form a little library histories led. They had to be small and cheap but I was anxious to have a history of every country, and

accordingly I still have booklets, the more elementary the better, sketching the histories of France, England, Germany, Russia, Italy, Spain, Portugal, a few of the South American countries, China, and several charts picturing the whole course of human events. I never read much in these books but to own them gave me some false sense of possessing their contents. I did attempt to write the history of Ashfield, but this idea of being an historian entirely died out soon after I entered college and was supplanted by other aims.

In the yellow chest I find more than a score of vocabularies. As a boy I put down and often defined words that were strange, new, or especially attractive to me from their sound. This I did with a view of enlarging my vocabulary for I confess to an early conceit of using words that would make my schoolmates gape and stare. My critics in later years have, alas! often accused me of pedantry of this sort. If I am guilty, I fear I am incurable because it may thus go back to childhood.

I insert, unchanged, a school composition written at sixteen and suggested, of course, by Addison's *Temple of Fame.*

About two weeks since I pursued my lucubrations to an hour of the night somewhat later than usual. When I retired my excited imagination was disturbed by flitting thoughts and sounds so strange and extravagant that had I been awake I should have supposed I had exchanged brains with some visionary lunatic, who sees sights and prodigies in every wind and leaf. Now a Latin rule and a knotty translation I had in vain tried to master danced before my eyes with menacing and defying air. Now an irregular verb went crashing through my bewildered brain. Problems and rules and ideas were personified and whirled before my eyes like the weird sisters in their giddy dance. Now a dagger jigged it over my bosom in the decorous attire of a holy

monk. But my discerning sight penetrated all its disguises and saw it stripped and wielded by a strong arm over my head. Now a dozen Latin and as many Greek grammars; a few algebras boiled down to an almost imperceptible decoction of sense, then suddenly transformed into a gibbering Egyptian mummy, with gown and cowl. Pigmy fairies, snatches of song, griffins, every kind of sense and nonsense in promiscuous profusion, in short I should judge all the raw material which dreams are made of, went trampling and tearing through and over my brain, and it was a long time before this trumpery arranged itself into anything like the form of a dream.

But at length the tumult was assuaged and I felt a very pleasing vision stealing over my oppressed senses. I thought that passions were materialized and that we lived in the time of myths and allegories. I seemed to be walking up the streets of this trim little village, when my attention was attracted by a building which I had never noticed before, and which seemed by some magic power to have risen out of the ground during the night. It was situated on the side hill, eight rods north of the old church. The back part of the edifice was veiled by a cloud, which also covered the hill beyond. The front was formed after the fashion of our national Capitol only much smaller, and glittered with a peculiar silvery brightness. The dome was surmounted by a small cupola, upon which was seated a figure of the goddess of Justice.

Seeing people from all parts of the town thronging about the doorway, my curiosity prompted me to enter. Stepping upon the threshold, a voice which I soon recognized to be that of the oracle of the place informed me from a dense cloud, which appeared to prohibit farther ingress, that the almighty gods, rulers of heaven and earth, had in their eternal wisdom determined to dispense with the worship of temples where so much hypocrisy was practiced and where men held to God with one hand and to Mammon with the other, and in their stead had erected this building where each man must worship the idol which his heart adored, where there could be no hypocrisy and where each must openly profess what he secretly loved. And, further than

that, the gods had here vitalized and deified all those phantoms which men pursue, and within were living deities—the goddess of Envy, with all her deformity, the goddess of Charity with all her loveliness, and many others, each of whom received upon its altar the oblations of its votaries.

The cloud then vanished, and I entered. I found myself in a spacious hall about which were seated gods and goddesses representing the various objects which men in this town live for, each with its several attractions or deformities. The first object which attracted my attention was the giant god Contention, at the farther end of the hall. His feet were shod with iron; his limbs were huge and brawny. He leaned upon a glittering falchion. His head towered nearly to the top of the hall. He was naturally pale and cadaverous but when excited red and florid. Ever and anon he cast his eyes toward the two oppugnant churches down on the hill with grim complacency. He was particularly fierce and active about the time of the fall elections, and often private broils seemed greatly to refresh him. Before him stood an altar on which those who adored him burned their offerings, and when the smoke shrouded the whole hall and reached his lofty nostrils he seemed greatly delighted, inasmuch as most of his votaries were members of the two militant churches and each laid his sacrifice upon the altar with imprecations on the other. Moreover, I learned that those sacrifices annually amounted to a sum which if rightly expended might pay the salary of one minister and support one church and pay the town officers, and that if politics were exterminated and the militant churches were to smile again and assume their pristine friendship this mighty god would dwindle, pine away, and die.

I looked about me for a certain humble little deity called Piety. At length I espied her, no bigger that a Lilliputian queen, sitting by one of the huge feet of the monster Contention. There was a wonderful gentleness and beauty in her languishing features. Her eyes though red with weeping were turned upwards. Her hands were clasped in devotion, and a sweet smile mantled her face through her tears. She looked not on the present; her gaze was bent

on the joyful future. And although no one can tell what she reads on its obscure pages, yet her heavenly aspect tells plainer than words that she sees there joy and peace and rest the world knows not of. Often she is hidden and nearly suffocated by the smoke from the altar of Contention. Often his iron foot is raised to crush her frail form to the earth, and often the sword raised threateningly over her head. Yet she fears not, for her look is upward and onward and she knows in the end all will be well. Now and then came a suppliant with meager offering to lay upon her altar, but it was like the widow's mite, small and given in poverty. Once she had been tall and vigorous, but as Contention grew up so strong and rampant by her side, she fainted and waned and her days seemed numbered unless the monster perished, for the smoke of his altar was to her deadly malaria.

Near her I espied another humble goddess, Charity. Her countenance was lighted up with a wonderful benignancy as I entered, and although I had nothing to offer, my presence seemed to fill her with unspeakable delight. Her right hand was stretched imploringly for alms while her left pointed to the haggard goddess, Poverty. If sacrifices were offered to any of her friends, Piety, Faith, Hope, Love, she was greatly delighted, but toward the god of Envy at the other side of the room she was filled with most implacable disgust. Some came up and with a great deal of ostentation threw into her hand jingling coin that all might see. But she scornfully rejected them, tossing them on the altar of Vanity nearby.

Patriotism was a strange god. He seemed once to have been beautiful. But now his beauty was sadly degenerated. He was bloated and deformed and strangely decked with galoons and furbelows, gewgaws of every kind all worn and soiled, and though many offerings were piled on his altar most were rejected as counterfeit. At his left hand sat the goddess of Liberty to whom he had pledged himself and for whom he would fight like an ancient chevalier for his mistress. In his right hand he held a flashing sword, which seemed greatly to terrify the monster, Tyranny, the arch enemy of his fair mistress. This bloated Patriotism

was a martial Patriotism, and he seemed to forget that he might live as well in peace as in war and hold the plow as well as the sword. Regiments of soldiers filed by to cast their noble offerings of life and ease upon his altar. What is that strange commotion about the doorway? Ah, I have it. It is the female regiment. And now they enter in solid column, as solid as circumstances will admit. A huge gonfalon waved over their heads with the motto "Shame on Exempts." Rosettes flutter from every part of their apparel. Martial ladies, old and young, march with steady tramp on toward the altar of Patriotism. The commander marches proudly at their head. Maids who never had a son or husband, married ladies whose sons are all daughters and whose husbands are exempt and whose friends are too old or too young, boast with stentorian voice that if they had twenty able sons or husbands all should go to the war. Clear voices and cracked voices respond in the chorus of "Red, White, and Blue" till the whole edifice creaks and trembles. Cavalry and infantry, with noble self-devotion, cast their offerings on the altar of their country's god. But how shall I describe their consternation when the sprightly deity rejects them all as unsubstantial and worthless, finding them to consist of a rosette, a bunch of lint, a miniature flag, a copy of the "Star Spangled Banner" and a few stale imprecations on exempts. But 'tis said that female regiment has melted away and that no traces of it now remain save in the mutterings of a few of the most masculine and infatuated of its members who yet groan and hiss at exempts.

Nearby sat Avarice, his bony fingers clutching a few greasy coins and still grasping for more. Each new acquisition seemed but to increase his avidity. His eyes were sunken and his visage grim and ghastly. On his altar a few sacrificed their dwindled manhood and honesty.

At the other side of the hall Intemperance presided over his altar. Here men sacrificed their property and manly virtues and yet the monster was inexorable and still with bloody eyes and bloated face and disheveled hair importuned his votaries for more of staunch and manly self-respect, more of dignity and virtue. Nearby Vanity with her

butterfly attire received the vain oblation of a few of the gaudy sons of fashion. She had a very sycophantic and fawning aspect but was very beautiful withal. But her heart, like that of her followers, was a mass of corruption.

I woke and the moon was filling my room with its silver beams. I sprang up and paced my apartment for some time before I could realize that I was really alive and that I was still in that pleasant world I had left the night before. I would spare each one of you the sweat and agony by which that dream was wrought out; therefore let me implore you to give it no consideration. Lef me beg of you not to be either offended or delighted at anything so flat as a dream. You know the consequences which befell the sons of Jacob because they even condescended to give their brother's dream the consideration of a sneer. And let me entreat you not to be so silly as to be either glad, gloomy, pleased, or offended at anything so trivial, transitory, and awry as the stuff which dreams are made of.

I print the above juvenile effusion for several reasons. It was, in a sense, an emergency product. I knew long beforehand that I had to read a "composition" of my own at the evening exhibition that marked the close of the school year and had tried various themes which proved unsatisfactory and were discarded. As the date approached, there came the dreadful prospect of failure to do anything creditable. Almost at the last moment the suggestion of the above came to and almost possessed me, and in setting down the substance of it, which needed only revision and final rewriting and which I believe was done in an evening and night, I had my first experience of something like an intellectual afflatus, so much so that I slept but little and was good for nothing the next day. I had hitherto almost no experience with any kind of mental erethism so that it really marked the beginning of a series of many such experiences later when work had begun hard and been gradually accelerated and finally had done itself, often

in very late hours of the night. Moreover, I would fain believe that I have inherited from my parents some degree of the knack, often remarked in both of them, of turning off work expeditiously when they had to, something for which my mother seemed almost to have a sleight of hand in all she did. Just as she was always saving steps, with the faculty of carrying and doing many things at the same time, my father, as noted above, was always insisting on easier and more efficient ways of doing things or, as he said, putting head work into hand work.

As to the subject matter, I resented very profoundly the extravagances of the town brigade of women who suspected everybody of trying to get exemption for themselves and their friends from entering the army, and I had long felt, even more strongly, the bitter and degrading antagonisms which attended the split in the church that divided so many families. Of these deeper perturbations, then, this screed was a kind of spindrift, a spindrift being, in a sense, as I have since been fond of pointing out, a symbol of consciousness itself. I most vividly remember, too, at the close of the evening a very revered, elderly man and his wife, who had made a competence in New York and retired to their native Ashfield to live, sought me out, and the lady shook my hand and said she liked my paper, while her husband said, "Perhaps you have done better than you know, and possibly you may sometime go far." This was almost the first encouragement in this field I had ever had because my parents and relatives were always prone to disparagement and were critical and even derisive, fearing I should be guilty of the mortal sin of being "stuck up." The sentence-sense, too, which is the mysterious psychological root of style, seems to have taken a certain form here which perhaps has always stood by me more or less. At any rate, I have always

since felt less dread of emergencies, feeling somehow or other that I should be able to meet them.

In these Freudian days any autobiographer, especially if he be a man of science and most of all if he be a psychologist, would shirk his duty if, painful though it be, he did not write frankly upon at least certain aspects of the *vita sexualis*. I am further impelled to the following confessional in the hope that it may contain some germ of moral value if only by way of warning.

On a farm one sees much of sex among domestic animals. As a very small boy I had to keep account of the ewes and older sheep that had been reddened by the madder daily rubbed under the forequarters of the buck hired for a week or two to run with the flock till all were covered, a process I often saw long before I knew its meaning. I always drove the sows, often miles, to the boar and was given detailed instructions as to what I must see done and how. This also began in the age of innocence but continued beyond it. I was never kept from seeing all this relation among cattle and even horses. This often caused, in later years at home, an excitement from which I should have been shielded. Again, I often saw and not infrequently helped in the castration of pigs, lambs, calves, and colts, an operation in which one of my uncles was a local expert.

As a child the only name for a certain part of the body, which I long supposed was its proper and adopted designation, was "the dirty place" for this phrase was applied to nothing else. I knew no other name until I went to school, where I was greatly shocked by the obscenities that prevailed and where these parts were much shown, talked of, compared, and experimented with. My father occasionally went in swimming with us and once or twice took occasion to give us crude admonitions on sex hygiene. The thing

that sunk deepest was his story of a youth who abused himself and sinned with lewd women and as a result had a disease that ate his nose away until there were only two flat holes in his face for nostrils and who also became an idiot. For a long time, if I had any physical excitation or nocturnal experience I was almost petrified lest I was losing my brains and carefully examined the bridge of my nose to see if it was getting the least bit flat. I understood that any one who swerved in the slightest from the norm of purity was liable to be smitten with some loathsome disease which I associated with leprosy and with the "unpardonable sin" which the minister often dwelt upon.

So great was my dread of natural phenomena that in the earliest teens I rigged an apparatus and applied bandages to prevent erethism while I slept, which very likely only augmented the trouble. If I yielded to any kind of temptation to experimentation upon myself I suffered intense remorse and fear, and sent up many a secret and most fervent prayer that I might never again break my resolve. At one time I feared I was abnormal and found occasion to consult a physician in a neighboring town who did not know me. He examined me and took my dollar, and laughed at me, but also told me what consequences would ensue if I became unchaste. What an untold anguish of soul would have been saved me if some one had told me that certain experiences while I slept were as normal for boys in their teens as are the monthly phenomena for girls. I did not know that even in college and thought myself secretly and exceptionally corrupt and not quite worthy to associate with girls. This had probably much, if not most, to do with my abstention from them and was, I think, the chief factor that brought about my "conversion" in my sophomore year, although this made the struggle for purity far more intense, though I fear but little more successful.

I fear the good Lord on whom I was told, and tried, to cast my burden did not help me much here. Indeed, perhaps in transferring and committing all to Him I trusted my own powers less. Perhaps, again, my profound sense of inferiority here prompted me to compensate by striving all the harder for excellence in other lines, although there was always a haunting sense that if I succeeded in making anything of myself it would be despite this private handicap. I should certainly never dare to marry and have children. It was ineffable relief, therefore, to learn, as I did only far too late, that my life in this sphere had, on the whole, been in no sense abnormal or even exceptional.

I can think of only Tolstoi who by his unusual frankness in the story of his life has to this degree defied conventional prudery or refused to yield to the instincts of repression here.

The morals of my first Worthington school were, without exception, the "rottenest" I have ever heard of, although I have for many years been interested in sex perversions and have seen many disgusting revelations of things that went on in reform schools and many other places. Homosexuality, exhibitionism, *fellatio,* onanism, relations with animals, and almost every form of perversion described by Tarnowski, Krafft-Ebbing or Havelock Ellis, existed in this school. Once an older girl, when we chanced to be under a bridge by the brook, exposed herself to me. It was common for the older boys to catch us younger ones, unless we were fleet enough to outrun them, and to strip and exhibit us to older boys and even girls. Several couples were caught *in flagranti.* There was every kind of obscene word, tale, and cut, and things utterly indescribable—and I hope and believe incredible—were done for two or three years at this school. There were so-called French cards, apparently inno-

cent but transparent when held up to the light, with obscenities, and various indecent pamphlets and leaflets were surreptitiously circulated. I have always felt it fortunate that although I saw and heard so much that was vile I was too young, "under twelve," to be personally corrupted by it save in thought.

The *fons et origo* of it all was one of the older and also mentally brilliant boys whose grandfather seems to have initiated him into every manner of lewdness. I think there were two families who sent children here that must have been more or less degenerate, as, indeed, the subsequent career of its members indicated. One much older boy attempted to bribe and then to force me to do an indecent thing, which I refused. My father somehow got a hint of it, or possibly saw something of it at a distance, and took this young man into the barn, from which I distinctly remember hearing his loud cries and groans as he was being thrashed. One, and I think two, of the older girls had to leave school, and it was rumored had escaped maternity by medical means. I do not think any of us, even the younger boys, ever dared or else were too modest to tell our parents so that I have no idea that they knew anything about these iniquitous practices. It is remarkable, too, that the ringleader of it all later married, became a prosperous and wealthy citizen, and I met his two rather beautiful and accomplished daughters just after they were graduated from college. Only one other of the leaders in these debaucheries seems to have successfully raised a family. In none of the other six schools that I attended was there anything whatever of this kind, and so far as I know the morals of all those in Ashfield was in this respect entirely irreproachable.

My first love affair had for its object a girl half a dozen years older than I who attended the academy for several terms with me. I thought her beautiful

and admired all her acts and ways. She was popular with the older boys, and one in particular always accompanied her on school excursions and often took her to rides. I particularly hated him and took many ways of venting my spite upon him—putting crooked pins in his seat, throwing down and wiping my feet on his coat and hat as they hung in the closet, and was once caught dropping something on his head from the roof of the piazza above, for which he gave me a severe drubbing. I was conscious of this girl in all I did in her presence and did many idiotic things to "show off," once tackling a far bigger boy because I thought she was looking and coming to grief therefor. Once or twice I placed dainties in her desk, but I almost never dared to speak to her and she probably never dreamed of my devotion. She later became the mother of a large family and I often saw her on her summer visits to the town.

The next and only other juvenile craze of this kind was toward a girl of my own age, and this, too, lasted for several years. But, again, I hardly ever dared to address her, far less to accompany her home from the evening exercises, but was always interested in her career until she died a few years ago, with never a dream that she had been my idol.

I may add here that I think I was always rather a boy's boy and a man's man, for during my social life at Williston and later at Williams and the professional school in New York I never called on a young lady or even had more than the most passing acquaintance with one. In this respect I was, I know, very exceptional among my classmates.

Modern psychology attaches great importance to the child's first acquaintance with death, and as I hark back to my past I find that although death entered my own family very late I had some unusually close and early experiences with it. It was customary

in the town where I lived for people who were very sick to have two watchers outside the family, and very often one of these was a schoolboy or girl. Thus when I was in the early teens it so happened that in performing this office for a schoolmate the latter died in the night and it was my duty to help "lay out the corpse," which we did on a long board and left in the parlor near a window, covered with a sheet. We then retired to the kitchen to our little "bunks" on the floor. The fat man with me fell into a sound sleep, which my fancy was too riotous to permit me to do. Suddenly a noise like a groan, with a long crescendo and diminuendo, was heard from the direction of the parlor. Words cannot describe my horror and I awoke my companion. We both heard it several times and he was, I think, even more alarmed than I. We investigated the corpse, which had not moved, but still heard the horrible noise. At length we mustered courage to investigate further and found that it came from a bumblebee that had crawled under one of the thin dry weather-worn clapboards just outside the window.

Some years after this, in performing a similar office alone for an elderly neighbor who was mortally ill and who also died in the night, I undertook, with what courage I could muster, to perform the function of "laying him out" by myself without rousing the family. I did it with the single mishap that the board raised on the two chairs, by which the very heavy corpse was supported, broke and I had to find my way to the shed and obtain two others to replace it. My horror was greatly increased by the fact that when the crash occurred the body, from which life had been extinct for half an hour, gave a groan as if he were really alive. I do not know why, but during my teens, perhaps because I was good-natured and sympathetic, I was repeatedly called upon to serve

at such occasions, and my uncle, who loved gruesome jokes, thought that I was made for an undertaker. I remember, too, when the village drunkard fell some fifteen feet off an abutment by a bridge, crushing his skull, it was my fortune to be the first to discover him the next day and again to perform these functions, as I was called upon to do much later for both my father and my mother.

When my brother, a young clergyman, was dying of pneumonia and I agonizingly asked him if he could not possibly rally and throw it off, he replied that he could not but was dying. He roused himself sufficiently to give each one at his bedside a parting word, almost at the last moment, and I shall always remember that his admonition to me was to "be mindful of all that is good."

For several years at the very dawn of puberty I fancied my heart was not doing its duty, an experience we now know to be quite common at the time when growth of the circulatory system is rapid and the heart and the caliber of the large blood vessels near it do not always keep pace with each other. Scores of nights I went to sleep with my finger upon my pulse, which occasionally skipped a beat, and imagined I should be found dead in my bed in the morning in ways I had read of. The infant prayer, which I must have said at least until schooling began, "If I should die before I wake" was associated with gruesome fancies. A schoolmate who suffered a violent attack of epilepsy in which he was carried out screaming from the church during the long prayer by the minister was another awful warning, and so were the revival sermons which represented life as being hung by a hair from which we might at any moment drop into eternity. Young's "Night Thoughts" was a book from which my mother often read aloud, and the "Thanatopsis" of W. C. Bryant, to whom she

had been to school, was one of the earliest things I had to memorize. The thought of death, too, pervades the Westminster catechism, for memorizing the seventy-two points of which I received, when I was eleven, a decorated diploma which I still have.

There was another very marked phenomenon which I think must have been due to some kind of abnormality in my psychic make-up that followed me for years, perhaps up to the time I was ten or twelve. When looking, for instance, at a window, it seemed to rock, perhaps due to imperfect and alternating focalization; and connected somehow in my mind with this, but perhaps due to a psychologically different cause, was the fact that I found myself, when something was happening in which I was interested, looking at some utterly irrelevant object and sometimes thinking and often even uttering the word "by" as if there were some imperative association of the serious event which occupied me with a trivial irrelevancy of sense. Was it that rank associations were trying to form themselves and because there were no natural connections one was forced upon me? In this way a reproof of my father became associated with a crack in a windowpane, etc.

When I was sixteen, after appearing before the three members of the school committee and passing their oral examination and receiving a written certificate of competence, I was engaged to teach my first school in an outlying district of the town called Chapel Falls. The building was large and one half of it was used for religious service while the other half was the school. It was beautifully located near a deep gorge through which flowed a small stream with many falls and deep pools and above which towered "horse-neck rock," from which a horse was said to have fallen to his death. It was a winter term and there must be a man teacher because the older boys came in, some-

times up to the age of twenty-one. Half a dozen of my pupils were older than I, and two or three had been fellow schoolmates at the Academy. It was, therefore, with great trepidation that I began entering their names in the register, from which the roll always had to be called the first thing in the morning, and organized the classes. The oldest girl was twenty-four and had herself taught school for several terms. She came now to begin Latin and to improve her knowledge of Algebra. I think it was owing to her kindly influence that I had none of the anticipated trouble in discipline, and everything passed so smoothly that I remember very few incidents.

I boarded around so many nights to the scholar, and as I trudged home every Friday night the burden of keeping me was thus less when the number of nights in the term was divided by the number of scholars. Occasionally I had to invite myself, but usually the time was set by the parents and generally followed butchering day, for the teacher lived on the fat of the land and I think there was often competition as to who should set the best table. I was often asked how many nights per scholar I should impose upon them and as there was in fact a fraction, I was often generously and jocosely told that I need not get up in the middle of the night, because it was three days and a half per pupil, for they would gladly take the extra half. Thus I became acquainted with the family life of every pupil, best so, of course, with the larger families. Occasionally the pupils would ask me in the evening to help them with some difficult sum. Very commonly before retiring refreshments were served—a big milk pan of popcorn, butternuts, cider and apples, etc. The teacher was given the best bed but the room was always cold, and I often found the bed warmed either by a well-wrapped soapstone for the feet or by a warming pan, while the sheets were

generally of flannel, and the "ticks" were always made of feathers and all covered by a counterpane.

One day I sent one of the older girls to do an example on the board, and instead she began to write in a strange way which I thought meant insubordination and so sent her to her seat. She came to school no more but soon afterwards, when I came to board at her house, I was told that this act in school marked the development of her power as a spiritual medium, and evenings she went into a trance and wrote me messages from several of my dead relatives. She afterwards became a speaking medium of considerable note in the county.

This was an unusually severe winter and twice, at least, after blizzards it was impossible even for me to reach the schoolhouse because the roads were unbroken. Here I democratically took my turn with the older boys in building the morning fire. Once we ran out of wood and school had to be omitted for the day until the contractor could supply it.

A few of the older and brighter pupils were really more advanced than I in mathematical ability and I had to work secretly, after I had supposedly gone to bed, to puzzle out and explain a few of the more difficult examples. In one case I made a secret pilgrimage one night to my aunt, two miles away, who told me how to solve a problem which was beyond my own powers, and I finally fortified myself with a printed "key" explaining how the harder sums were done.

The next term I was engaged to teach at the opposite end of the town in a school that was considered very hard to manage. There were some forty pupils of all ages. Here my first problem was three large boys who had ensconced themselves in the back seats against the wall and defiantly chewed tobacco, with copious spitting all over the floor. Although I was informed that this had been allowed I held that it must

be stopped. I said nothing, however, for the first few days but one night tramped four miles to see if the chairman of the school committee would sustain me if I attempted to stop it. He refused to commit himself, but another member of the committee promised to stand by me. The next night, therefore, at the close of school I announced that, by the authority of the committee, chewing tobacco in school hours would no longer be permitted. I knew this meant trouble. Next morning only one of the chewers defiantly bit off a piece of his plug and began to chew before me. The crisis was here and I saw that I must break the habit or leave the school. He was a very slender and tall, slouchy, sickly stripling of twenty-one, and when I reminded him of the last evening's prohibition and told him to stop chewing he insolently and loudly bade me "go to hell." This angered me, and casting the program I had planned aside I rushed up the aisle, seized him with both hands by the collar, jerked him forward so suddenly that the desk in front of him fell over, dragged him down the aisle and across the floor, out of the room into the shed, and told him he should not come back until he promised to comply with this new rule. He was somewhat cowed but did not attempt to come back, and finally strolled off toward home. The two other chewers might have attacked me and thrown me out, and probably would have done so if I had acted less suddenly. As it was, they remained in their seats although at recess one of them went home, to come back the next day with a letter from his father saying that his son had chewed for years and I had no right to forbid him. I insisted that I could not break this rule and he should not, and after a few days both returned and there was no further trouble with discipline on this or any other score. On the contrary, these young men became my ardent friends and supporters. For many years after,

when I occasionally met the one I dragged out, who became a baggage master in the railroad station nearest Ashfield, his universal greeting was always reminiscent of what he called my thrashing and the good it had done him. His and the other parents, when my turn came to board there, seemed to have lost all their hostility and were rather effusive in their assurance that they always backed up the teacher.

Here there were twin girls in the earliest teens who were so exactly alike that I never was able to tell them apart, and they used to play mild pranks upon me because of this inability. In one family there were four girls bearing the names Leonora Clarissa, Sophronia Malissa, Isadoria Orissa, and Philoria Felicia, all bright, attractive girls and almost as alike as their names. The two last or youngest went to school to me with their still younger brother, and the older sisters occasionally came in. In this district there was a far more active secular life and a great many dances, parties, sleigh rides, spelling schools, and evening "rhetoricals," at one of which I spouted as my contribution a few paragraphs of Cicero's oration against Catiline in Latin, to the befuddlement of the groundlings. Very often in the evenings the parents where I boarded would go away to some of these gatherings after supper and leave me in charge of the younger children. In one case I was the sole occupant of the house with a young baby who, the mother assured me, would not wake up. But it did, and I did everything possible to stop its crying. But in vain until the happy thought struck me that the big bass viol in the corner that the father played might soothe it. It did, for when the parents came home I was found playing it to a silent, wide-eyed infant in the cradle. This was remembered and was often repeated to me for decades.

Here, toward the latter part of the term, I became

so popular that I ventured, against the advice of my parents, to play games with the boys at recess and during the noon hour after we had eaten our dinner, and found no difficulty in modulating from playmate to teacher when I rang the bell.

It was in this school that I first noticed the prevalence of fads.[13] One older popular girl would come to school with spit curls and before noon all would have them. Then came parting the hair on one side, wearing a bow in some unusual way, certain expressions which were taken up and spread through the school like wildfire, etc. There was a bookmark fad, too. The girls in this school slightly outnumbered the boys and were somewhat flirtatious, and one or two were prone to make slight advances toward the schoolmaster. But although I had very decided preferences I had always been warned that it was fatal to show these, and I believe I never did. To my great delight I was asked later to try another term at this school, but did not do so.

This winter was one of several in which I attended a singing school held in the village Friday nights, usually conducted by a local chorister although sometimes others were brought in by a committee and occasionally one came as a private venture, holding schools for a small fee, perhaps a dozen evenings. A concert was given at the close for which admission was charged and generally packed the old church. Where home talent only was employed the singing was almost entirely religious, with sometimes rather difficult "set pieces," while in the other schools secular music found a place.

I have always been grateful not only that my early life was passed in the country and on a farm but in

[13] See M. H. Small: "The Suggestibility of Children," *Ped. Sem.*, 4:186 (1896).

a community where life was close to nature and the simple virtues of industry, frugality, and clean living were taught and exemplified. Obscure as most of my relatives here were, it affords me much satisfaction to record that I never heard of a Hall in town (and they constituted perhaps one fourth of the population) who ever committed a crime, was the subject of any scandal or, so far as I know, was guilty of a sharp or dishonest dealing of any kind. There were no quarrels and they never went to law. They all lived by hard work and, as my uncle used to say, he doubted if any of them ever got a dishonest dollar. Most of them placed morality above religion although giving certain deference to the latter. Few were pietists, although most of my remoter relatives of whom I have learned who did enter a profession chose the ministry, while none of them became missionaries, although nearly all in town always felt it their duty to make modest and often stated contributions to this cause.

As I read over the above I realize that it at least illustrates an old man's tendency to indulge in reminiscence and anecdotage. It shows, too, the reversionary tendencies that I suppose are normal and even inveterate at my time of life. I do not think that at any earlier period I could have taken the pleasure in recalling or the pains to set down these items as I have now done. I realize that many if not most of them are trivial and commonplace but they do illustrate the kind of boy life once common in this country but now gone forever, so rapidly have circumstances changed since my early days. But no genetic psychologist ever before attempted a frank autobiography or, indeed, any at all, although above all others he should strive for that highest kind of self-knowledge that comes from the careful objective and impersonal study of the developmental stages of his own psycho-

physic personality which I think are pretty well marked in my own life.

Whether I owe more to heredity, glimpsed in Chapter II, or to early environment, which this chapter sketches, it would be as idle to discuss as would the problem of the innate or acquired traits which have occupied so much of the history of philosophy from Locke to Spencer, or of preformation by germ plasm versus epigenesis which biologists since Weismann and Hertwig have so hotly debated. Of these two views it may be said, as the theologians said of the relations between the Old Testament and the New, in the first the last lay concealed and in the last the first stands revealed.

Individuality, if not more developed in the country than in the city, is less veiled by conventionalities so that basal traits are more apparent, and the relations between adults and children are closer so that the latter know more of human nature and even develop attitudes toward most of the grown-ups in their environment, as in Ashfield many of these also came to do toward me. I heard all of them discussed and a rather complex system of likes and dislikes, now the one and now the other predominating, was thus evolved towards not a few individuals in the community. This is less the case with boys in larger places where there are more children and where their interests are more restricted and absorbed in those of their own age. There were far fewer children there than when my father, and still less than when my grandfather, was young, and this disproportion still further lessened age segregation.

I must have been a rather unusually active youngster in mind and body and this of course made for a wider surface of contact with both men and things. Thus before I left home both my character and views of life were in some respects beginning to take definite

shape. I should have stiffened in the mold had I not molted the old environment, for this prevented premature inspissation and made me plastic again and susceptible to new influences. Had I spent my early years in a larger place with a wider horizon and with thus a less complete orientation to my surroundings I should have been less ripened for transplantation. Ashfield, Easthampton, Williams, New York and the professional school, and then Europe—each involving a change into a wider field, gave me always at first a deep sense of insufficiency if not of inferiority and so kept me docile, and yet gave a sense of progress for each transition fitted more or less my psychological age and brought new incentives. Had I been born in or suddenly thrust into opportunities that were so large for me that I could not improve or even appreciate them, or had I grown up in an environment too vast and complex to be grasped, my life would have less nearly recapitulated the evolutionary history of the human race and there would have been more waste and misfit. But as it was, ontogeny did in a rather rare sense epitomize phylogeny.

Hence just as in reviewing my family and forbears I grew not only reconciled to but proud of my pedigree, so now in reënvisaging my boyhood and home life I have come to think it fortunate that it was rural, amidst straitened circumstances, simple, and among homely but genuine people. Hence I should not be surprised if, when we know more of paidology and pedagogy and understand better the laws of the development of character and disposition, the conditions of my early life or their psychokinetic equivalents would be found to have been not far from the ideally best for the unfolding of the higher powers of man in early years. Thus this survey brings to me a new complacency. The best that could have been is, after all, not so very far at variance with what

was, as I have always before felt it to be. Thus I am not only more reconciled to my boyhood and early home than I have ever been able to feel before but I am pretty well convinced that for me, at least, most of its features and circumstances (not, however, without a few definite reservations) were about the best possible, and that many conditions I had grown into the habit of deploring and wishing could have been otherwise, had they been changed as I desired would have meant loss and perhaps disaster. We read of late very much about repressions which dwarf childhood and distort and pervert it, and thus many adults have come to feel a kind of self-pity for themselves, regretting the powers that were aborted or thwarted in them. But in my childhood I am convinced that there was vastly more incentive than repression and that most of such abilities as I was endowed with have had a development well up toward the maximum of my capacity. Fully flowered individuation in this life saps the root of desire for a life beyond the grave so that the above may be at least one psychokinetic cause of my growing indifference to or doubt of personal immortality, just as, on the other hand, my parents' sense of arrest here may have increased the tenacity with which they clung to their faith in the life beyond. This, however, was less strong in them in their later years, partly perhaps because it found vicarious expression in the fact that their children were doing well, as they felt they had not done. Had we all fallen by the way they would have found more compensation in their personal hopes of heaven, according to laws I have tried to set forth elsewhere.[14] Perhaps they loved and lived in and for us too much.

This thought brings me to an incident of the ut-

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[14] See my *Senescence*, p. 478 *et seq.*

most moment for all my subsequent life, one which I would fain leave unrecorded but which, as I have set out to be honest and unreserved, I must not omit, painful as is the memory of it. It occurred not long before I left home. I was not quite old enough to be drafted or to enlist in the army during our Civil War, which a number of my older schoolmates did. As the war dragged on, my father took me one day to a government physician who had opened an office in town and had him examine my knee, which I had badly sprained and abraded. He greatly frightened me by saying that I was in danger of having a "white swelling" or "water on the knee," which was considerably inflamed. I thought it strange that I had not been taken to our family doctor whom we all respected and loved. Only later, and in a very mortifying way, did I learn that as a result of this examination my father, on payment of a large fee, had taken out for me a certificate of exemption from military service on the ground of this injury, which proved to be very temporary and left no trace. Still more humiliating later came the knowledge that not long after this he had also hired a "substitute" for me for three hundred dollars in case I should be drafted, as I was approaching the age of liability for army service. The last draft, however, occurred before I had reached the required age and I do not know whether the above sum was ever actually paid.

The term "an exempt" was one of great reproach and it stung and rankled. How I reacted to it is seen in the later part of the above composition. My father was taunted for "loving his son more than he did his country" and writhed under the accusation. These censures were severe by neighbors and particularly by relatives who had sent their sons, and were bitterest of all by those whose sons had died in the service. In some cases this alienated families which had been

friends for years. But my father should not bear the blame alone for I must frankly confess that I was a coward at heart in this matter. My imagination was too strong and active and I pictured every sort of horror in battle and hardship in camp. Had I gone, either my name would now be enrolled among those who died for their country on the modest soldiers' monument where farmers now water their horses in the village or else I should have been a whole or wounded veteran, and "oh, the difference to me!" True, I tried to enlist surreptitiously at last, largely probably because goaded, stung, and ashamed. To make my confession complete, I have never since been able, on the whole, to wish I had gone.

This experience has always been, I think, the very sorest of all my memories but it has also been a tremendous stimulus to atone by service, so that it is not too much to say that there has been something like a penance *motif* in all my efforts ever since. The fact that although able-bodied I did not answer my country's call has also, to some extent, affected all my views about our Civil War, its issues, its leaders and heroes, about the carpet-bag *régime* that followed, my feeling toward the south, where I have often been on lecture tours, about nationalism, patriotism, and war and peace. Even with the best of will no training could have ever made me a good soldier, inheriting as I do my mother's dread of conflict. Perhaps with my temperament I might have started a stampede in battle, although I could never have become a deserter. In his course my father was doubtless largely influenced by my mother. He longed to enlist himself but was too old. He was a born fighter, a passionate abolitionist, made war speeches at prayer meetings and in public, imploring the blessing of Heaven upon Lincoln and the northern army, refused to meet a slaveholder who spent his summers in Ashfield, and

later grew almost bitter toward Lincoln because he so long delayed to free the slaves and finally did so only as a war measure. Besides the three weekly newspapers diligently read, mostly aloud, our life was little affected by the war and, strange as it may seem, I really heard and knew much less of it after entering college than at home. There we had a collection of rude portraits of some two hundred generals and others whom the war brought into prominence and we knew something about them all. But I do not remember ever having heard an address or even a sermon on war either at Williston or at Williams and I have never read a history of our Civil War, although I have bought and begun several. I think that the above painful experience may have obliterated my memories of it and made the perusal of it painful, illustrating the strong unconscious tendency to evict what is unpleasant from consciousness. Hence, although I have done a good deal of reading in history, especially of the wars during my life—the Crimean, Franco-Prussian, the Boer War, and that with Spain—there is a gap here. It was this war that came closer home, I think, than even the Great War lately ended. Thus here for the most part only juvenile impressions, unrevised and unenlarged, remain.

CHAPTER IV

MY SECONDARY AND HIGHER EDUCATION IN THIS COUNTRY

Williston Seminary: impressions, influences, and work there—Williams College: studies, professors, and their influence, particularly Perry and Bascom—Classmates—The "Junto": its members and work—Emerson—The beauties of nature there—Religiosity of the institution—The personality and system of Mark Hopkins, his great influence upon graduates and his cult—Ashfield—Charles Eliot Norton and his group—The academy dinners—Union Theological Seminary and its work—Seeing life in New York City—The theater, etc.—Modes of earning money—Cowdersport—Henry Ward Beecher and the debt of European study I owe him.

When I was seventeen I left home, not permanently, however, because vacations were spent there through all the later stages of my education, and after I was settled in life there were visits every summer when I was in this country until both my parents died. It was at last definitely decided that I should go to college, as my mother had always wished, and to this plan my father finally acquiesced. Accordingly I was packed off to Williston Seminary at Easthampton, Massachusetts, only some twenty-four miles away and yet involving, as I well remember, my first ride on the cars. Here I entered the senior class of 1863 in the classical department, which numbered forty-one students, three of whom were girls and all fitting for college. This was to me a radically new stage of life. I was probably the most backward of my class at the beginning and I had never had a single schoolmate who, so far as I know, ever dreamed of

an education higher than that which the Ashfield schools afforded. Moreover, the social status of my classmates here was, on the whole, much higher than anything I had ever known. Many of them were young gentlemen who had seen much of the world, who were somewhat traveled and came from distant parts of the country, and most had a *savoir faire* which I entirely lacked.

In Ashfield I had become a rather marked youngster, was thought to be promising by a goodly circle of friends, and had developed some complacency even in my "clothes consciousness." But at Easthampton I found myself not only at or near the very bottom of the class but thrown into association with young men somewhat older. They were greatly my superiors in scholarship, looks, dress, deportment, experience, ability in debating, in writing, and perhaps above all their characters were well developed and their individualities very marked, and some of them even had peculiarities that were generally accepted. The seniors in the classical department of a school of this kind were very conscious of their superiority to pupils in the larger English department or in the lower classes; so much so that on becoming freshmen in college it was necessary for them to essentially change their attitude and discard much of their dignity.

I felt intensely self-conscious as with my heavy black enameled cloth valise, which contained all I had brought, I was landed at the door of the boarding hall and, after living a day or two with an uncle in town, was assigned a room in the dormitory. Everything was strange and new, but I fortunately found a distant acquaintance who had been there before and who helped me through the initial stages of adjustment. One of the teachers of Greek, Richards, a brilliant and recent valedictorian of Amherst, had, as

I have said, been to school to my mother and had also taught me in a district school when I was young, and he befriended and counseled me.

The work to which I had to give myself here was almost entirely Latin and Greek, the Algebra and Geometry required for admission to college needing but little time. The requirements for admission, as I remember them, were six books of Caesar's Commentaries, four orations of Cicero, four books of the Aeneid, with some of the Eclogues and Bucolics, several books of the Anabasis, and four of the Iliad. All of this was not required for entrance to all colleges but the Williston standard was high, and students must be fitted for Harvard and Yale as well as for institutions which admitted on less. Much of this work was review for my classmates who had spent one, two, or three preceding years there but it was new to me. I never worked harder. It was the last year of the presidency of that remarkable man and teacher, Josiah Clark, assisted by M. F. Dickinson and several others. The instructor opened a little box with tiny slips of cardboard on which the names of the class were written, shuffled them, and selected one student at random to march out to the high-standing desk before the class, on which was a clean copy of the text which he must use. This he had to pronounce, translate, and he must answer questions regarding its construction and meaning. My dread of this was prolonged for weeks before my turn came and I suspected "Prex" of "tempering the wind to the shorn lamb" by not calling me to this ordeal for a long time and being very gentle with me the first time I blundered through and took my seat in utter confusion. "Ponies" and Bohn's *Translation* were in vogue but I had vowed I would never use one and did not, although I now believe a judicious use of them would have greatly facilitated my knowledge. But it

was bad form in this school. Perhaps I was unwise to resist this temptation.

The moral tone here was, to the best of my knowledge, ideal. The worst suspicion cherished against any classmate was that he sometimes secretly smoked in his room. Sundays the school marched in procession to the village church, the seniors always taking precedence. I remember little of these exercises save that occasionally we heard Julius Seeley, president of Amherst, and on one Sunday the pulpit was filled by his younger brother, Clark, who had just come home from Europe with all the *éclat* of foreign study and who seemed to me the highest embodiment of all my ideals. All that he said has vanished, but the impression of his personality then and there made upon me was indelible. He was the future distinguished first president and co-founder of Smith College, and a man whose acquaintance I have since enjoyed and, in common with all who knew him, have always held in the greatest reverence.

There was a weekly debate which took place, with other exercises, in a room set apart for it. I simply marveled at the facility with which difficult subjects were treated by classmates like Spellman, Herrick, and E. Root, who after a year's brilliant apprenticeship to Helmholtz, became a professor of physics at Amherst and was prematurely cut off by death near the outset of what doubtless would have been a most eminent career. Graves, the valedictorian, did not shine here but one or two of the men lowest in scholarship did. I never mustered courage to hear my own voice for I felt that I had everything to learn and never could begin to equal my classmates, the least competent of whom I envied. All I had known and done before seemed as nothing, and I now feel that I must have been allowed to stay only by sufferance of the authorities. The address at commencement, which

to me was the most dazzling event in my life thus far, was given by a young man, Francis Walker, also lately from European studies, who later became president of the Massachusetts Institute of Technology. I could comprehend but little of what he said but felt that it was a masterly effort. I value very highly the slight acquaintance I had with him later for he was more than once a guest at my house in subsequent years.

At Williston I never attempted to write anything save translations of all the classic authors we had there, and these were copious and are still preserved. Fortunately we used here the same grammars in both Greek and Latin that I had begun with in the Ashfield Academy—Goodwin's, and Andrews and Stoddard's respectively. I did not graduate because in mathematics my rank was with the middle or lower class. Strange to say, I never visited Williston again until the seventy-fifth anniversary of the school in 1917, at which I delivered the anniversary address on "Some Aspects of the War." I did, however, later enjoy some acquaintance with E. A. Hubbard, who taught there for decades after I left, and with M. F. Dickinson, who became a distinguished jurist in Boston. Principal Sawyer, who presided for so many years over the destiny of the institution and under whose wise leadership it has enjoyed such prosperity, was rightfully the central figure of all the anniversary exercises, and the memory of Samuel Williston, the financial founder of the institution, with whom two of my father's cousins were for many years intimately associated in business, was and always will be held in the highest reverence there.

One day in July, 1863, I left the hayfield, where I was working with my uncle for a dollar a day, and went to Williamstown, walking eighteen miles of the way, to take private entrance examinations. I visited

the three professors in mathematics, Greek, and Latin, and came home late at night, entered as a freshman in the class of 1867. I tried to conceal this at the farm but it was found out and I was unmercifully jibed.

At Williams, thanks to the Williston drill, I found myself better prepared than most of my classmates, and as these three subjects constituted most of the work of the first two years I had much leisure. Although there were no electives and all the exercises consisted in hearing recitations, the last two years were more humanistic and interesting. The eight professors, with the president and three instructors who constituted the faculty, no doubt did their best for us, but conditions were hard. In my day we had no geology or paleontology, although Professor Emmons on his death had left two museums that were well organized and their contents were well displayed. Professor C. F. Gilson started a course in French but became paralyzed before we had fairly begun. The professor of natural history gave a brief course one term and then was called away, so that we had almost no biology. The professor of chemistry gave a few dozen demonstrations and was the only man who taught in this way. He, too, left before the close of the course. There was no English literature save the little taught by the professor of rhetoric, who was far more interested in philosophy and economic questions. There was almost no physics, for the professor of natural philosophy was interested chiefly in astronomy and barely demonstrated a few of the instruments in his small cabinet. Most if not all of the professors covered nearly the same ground, with the same authors, year after year, and but few of them had aspired to authorship of any kind or were known to the outside world; yet the institution was by no means "mono-hipic." The exceptions were Professor

A. L. Perry, who was one of the pioneer apostles of free trade; Professor Bascom, who had published several books of a philosophical character and afterwards printed more; and of course, chief of all, the president, Mark Hopkins, who was also "professor of moral and intellectual philosophy." Professor P. A. Chadbourne gave us a few lessons in geology and biology but was interested in politics and devoted much of his time to business outside. He was a man of great and many-sided activity and later became president of a western university; and Bascom also, became president of Wisconsin University. As I look back on my four years here, it is to Bascom that I owe most. He alone suggested to me reading, criticized personally and in detail my literary efforts, and encouraged me to break away from Sir William Hamilton, whose system was taught by the president, and to become interested in Mill, Mansel, Jouffroi, and The Associationists. The divergences of his standpoint from that of the president were marked and a source of great interest to us students in the later college years, as most of us took sides with one or the other.

The president's brother, Albert, suggested to us in person and manner some old Hebrew prophet. He was intensely pietistic, we never knew him to smile, he was extremely slow in his physical and mental activities, and in teaching astronomy (for he had one of the first observatories in the country) he always gave a pietistic turn to the subject and in large letters under the dome where he taught was inscribed "The Heavens declare the glory of God," etc. It was he who instituted daily noon prayer meetings every spring and occasionally surprised students who were playing cards or smoking in their rooms at unseasonable hours. We regarded him with mystic awe and even dread but learned extremely little from him.

Perry was always the most beloved of men for he was reputed to take the student's part at faculty meetings and was the most accessible of all.

I think the intellectual caliber of the faculty as a whole, as represented in our instruction, was in my period pretty low, probably a little lower than it had been before and certainly far more so than it later became. Williams has long since outgrown these early limitations. It is to-day a college for rich quite as much as for poor men, its curriculum has been repeatedly and radically revised and improved, its faculty greatly enlarged, and it has succeeded in conserving the best of its earlier traditions and becoming modern and progressive in the best sense while at the same time preserving the loyalty of even its older graduates, as witnessed by the recent and successful "drive." The scholarship of not a few of its faculty has been productive, its resources have been greatly increased, the new buildings connected with it and other changes have made it one of the most beautiful and attractive college towns in the country, while its conferences during the last two summers have drawn very wide attention. All these changes have contributed to give it an ever warmer place in the hearts of all its graduates.

The professors seemed to us to live in splendid isolation. There was only a "ten-foot-pole" relation between them and us. I never heard of a reception to students given by any of them. To call on them socially was unheard of; nor did they visit us in our rooms. Even to linger after class to ask questions was bad form—"bootlicking, currying favor," etc. I do not think that I ever met one of the professors' wives. How the faculty, who usually taught three hours a day, spent their spare time was always a mystery to us for we rarely saw them outside of the classroom or chapel. The college was, I think, during

our course in a transition period from the extreme religiosity which characterized it years before to the more secular era that followed.

Most of my classmates were in moderate, and some in very straitened, circumstances. Some came from farms in the surrounding towns, and there was a goodly sprinkling of missionaries' sons, for Dr. Hopkins was long president of the A.B.C.F.M., and the traditions of the haystack nearby, where missions originated, were strong. The monument, I recall, stood on the site of the haystack in a field just back of the street, surmounted by a large marble globe, with the inscription, "The field is the world" and was a shrine of pious resort.

One classmate was so poor that he borrowed a wheelbarrow to take his trunk from the station, three quarters of a mile away, thereby saving the freightage of twenty-five cents. Board in one club cost $1.75 a week, although it was usually $2.50; $3.00 was thought high. One year we hired a woman, paying her so much plus the cost of food, and decided ourselves what we should have. We went in mostly for substantials but had no meat save on Sundays. Desserts were rare, and tea and coffee unknown; but on the whole I think we were well-nourished. Once I undertook to conduct a club for my fraternity but ran up the cost to nearly $5 a week and was discharged. A few private families took boarders, and one year the college supervised the boarding table. The tuition was sixty dollars but was often remitted to those preparing for the ministry, of which I was supposed to be one. I paid it, however, for one or more years. One dormitory room was devoted to old textbooks bought for a song from students who were through with them and sold at small cost to lower classmen, and this I patronized both as buyer and seller so that I now possess but few of the books used during the

course. I have made some effort to regain these books, but with very little success.

The college library was a small hexagonal building, open at certain hours only and with very meager resources although rich in theological works. The two literary societies were well stocked with standard works in literature and with fiction, and these, I think, were much more patronized by the students, especially in the later years, most of whom belonged to one or the other of them. Here, one evening every week literary exercises were held, and both the Philologian and Philotechnian competed in an annual debate organized under the name of the Adelphic Union. Here it was that I made one of the most mortifying of my fiascos. I prepared elaborately, but my chief opponent, Virgil P. Kline, a born orator who later had a brilliant and eminent career as a lawyer in Cleveland, anticipated all my arguments so that I could only flounder about, and I took the extraordinary time of twenty-five minutes trying in vain to gather my wits and thus brought mortification upon my side—and that before all the faculty.

In general, however, from the very start both the repression and the intense pressure I had felt at Williston were gone. Here, instead of being near the foot of my class I could maintain good standing with little work and so devoted myself with great assiduity to reading entirely outside the course. I am amazed as I recall the many poets, novelists, essayists, and even historians that I devoured. The chief influence for good to me during all these four years was the formation, I think in the sophomore year, of an association of less than a dozen classmates interested, which we called the *Junto*. We met every Saturday night, immediately after supper and often stayed till midnight, telling each other what we had read, reading papers, etc., and among us there was great emulation. Hamil-

ton Wright Mabie, my classmate and lifelong friend until his recent death, was a leader here, and during the entire quadrennium I felt myself his unsuccessful rival in reading and writing although I outranked him in scholarship. Other members were: Sanford Dole, later president of Hawaii; F. L. Stetson, the chief financial benefactor of Williams in later years, who died in 1920; the late Judge Robert Harmon of Lowell; Professor M. B. Thomas of Northwestern University; Judge Teller of New York; and several others. How we pored over and discussed Emerson, even his poems, Carlyle, Coleridge, Lamb, Wordsworth and the Lake Poets, Tennyson, E. P. Whipple, "Hamlet," "Macbeth," and other of the plays of Shakespeare, the Brownings, and G. W. Curtis. We discussed Dante in translation, *Wilhelm Meister, Faust,* read some of the plays of Schiller and Lessing in English, and many others. We cultivated style here, and I find very voluminous notes and papers which I wrote for these meetings.

I gave great attention, too, to the weekly debates in both societies, which I always attended and carefully prepared for. I was elected class or "Moonlight" orator at the end of the sophomore year and delivered a very sophomoric address on "The Year 1865," which I tried to make out the pivotal year of the world's history. War subjects, of course, held a prominent place in the debates. In my senior year I was elected one of the five editors of the Williams Quarterly, a fifty-page magazine appearing four times a year and supposed to contain the choicest undergraduate effusions. Here I find not a few of my own contributions—"The Inventive Mood"; a long fifteen-page article in fine print entitled, "The Editor's Table"; "The Student's Sin," and most belabored of all an essay on John Stuart Mill, for which I remember I read every available scrap of his

writings save his "Political Economy," which was too stiff. Mill was my first love and hero in philosophy and I defended his views as best I could against all his critics. Most of these printed, and the more numerous unprinted, productions seem to me now richly crammed with choice phrases borrowed, and some of them made, and to show an intense sentimentality which I think I have outgrown. The effort throughout was style, an affectation of superfineness which, again, I believe has left little trace. But it is all interesting to me now because in the copious and incessant allusions I can find traces of the wide extent of my reading in both prose and poetry in this golden period of my life.

I several times essayed poetry, and as I write I have before me several printed specimens, one on Bryant, one on "A Life Without A Soul"; but the most elaborate effort here, and the last, was when as poet of the class on Class Day I filled twelve pages with verses in many meters on philanthropy. I have never attempted poetry since. In reading over these effusions now I realize in an overwhelming way that the rank lush sentiments and emotions which really constitute the very heart of life in youth are gone forever and that I could never by any possibility, however much I might strive, revive the keen sensitiveness to all the beauties of nature or the subtle responses to many of the best productions of poetry which I then felt, so that it seems as though growing maturity had brought a certain desiccation of the psyche and that mere intellectuality had supervened with distinct loss of emotional response to life.

C. E. Woodbury, an upper classman and an enthusiastic admirer of Emerson, on whom he has for years lectured all over the country, invited him to give a series of addresses in Williamstown and he came—not to the college, however, but to speak in the village

hall. Few of the faculty attended but the students heard him gladly, and in my set a veritable Emersonian craze ran rampant. I even ventured to call upon the great man in his room at the hotel, and although I had nothing to say and remember nothing he said at the interview I felt that I had come into personal contact with the greatest living mind. I doubt if he was ever alluded to by the faculty in the classroom, for his ultra-Unitarianism was thought to be a very subtle and dangerous thing.

Near the end of my sophomore year, in the usual spring revival, two seniors whom I greatly respected began to cultivate my acquaintance and urge upon me the importance of "taking a stand for Christ." They even insisted on praying for me in my room and finally conducted me to a prayer meeting, and when the leader asked all who desired to be saved to rise, both of them—one on each side—urged me to stand, which I finally did with great reluctance. This, in that day and place meant that I was suffering from conviction of sin, and accordingly, by various stages which I do not recall in detail, I was led to believe that I had been converted. The next fall I united with the college church and for the two remaining years attended and sometimes took part in the various prayer meetings—class, college, etc. As I look back upon this I cannot think that it made any great change in my life although it did bring me into certain new associations and gave my parents great joy. I do not think that my emotional experiences were very deep. If they were, I do not remember them.

The last two years I taught a Bible class of mature ladies in the village of Blackington, three miles away, to which I devoted much time in preparation, and I still have a large Morocco-bound Bible which they gave me when I graduated. I could spend the more time in preparation for this because Monday morn-

ings, in place of the regular eight-o'clock recitation we had "Evidences of Christianity," so that we should not be tempted to break the Sabbath by secular studies on Sunday evenings. "Evidences," too, required less time.

At the close of sophomore year I had a severe attack of typhoid dysentery at Williamstown so that my parents both came and cared for me in the dormitory, where Dr. Hopkins also called during the most critical days; and when I was able, they took me home in a carriage by slow stages.

I was never quite able to make a place on the college baseball team, a game that I think began to prevail during my college course, but I was accepted for the glee club.

The beauties of Nature about Williamstown were very attractive, so that we not only climbed Greylock on "Mountain Day" but made frequent visits to the Cascades, the Sand Springs, East Mountain, and especially Flora's Glen, where Bryant was said to have written his "Thanatopsis." Hazing was always practiced though there was a strong religious element that discountenanced it. A group of sophomores who invaded our room filled it so densely with smoke that my chum was ill; but there was compensation because two of them were also affected. Our only rebellion was against the new professor, later president, Franklin Carter, who, as the old textbooks showed, set us somewhat longer Latin lessons in Juvenal than tradition gave precedent for. Hence we all stayed out of his class for a few days until the president gave us a serious talk which broke the back of the *émute*.

We learned greatly to revere Washington Gladden, a graduate of earlier years, then preaching nearby in North Adams, whom we often heard; George Mills, principal of a large fitting school in the southern part of the town; John Dennison, the very gifted but

partially invalided son-in-law of the president; Robert Booth, a brilliant New York pastor and trustee who often visited us; but in general we saw little of distinguished men from without or even alumni like Garfield, later our martyred president, or the sarcastic Senator Ingalls.

The college body was not large—some fifty in a class, so that each knew nearly every one and a good deal about all the upper classmen. Some of them we greatly revered and they had great influence upon us. I have always considered myself fortunate in being duly "trotted" and finally "swung" as a member of the Alpha Delta Phi fraternity. It was then small but its principles and aims were very high, and I entered with much zest into the literary exercises connected with most of its meetings. This, too, gave me a small inner circle of friends, although I broke less than most with the "oudens" or nonsociety men, who then constituted nearly half the class. To-day Williams College is, I think, preëminent for the relative power, wealth, and influence of its Greek-letter fraternities, most of which have elegant clubhouses and in which many of the students live in the most intimate social relations. Here the alumni foregather when they return at commencement, and in these fraternities alone class distinctions are forgotten and seniors and freshmen associate in the most intimate way. I think I shocked some conservatives by suggesting in a paper read to the alumni years later that each of these institutions might now profitably employ some graduate of Ph.D. rank who would act a little as an English tutor does at Oxford and Cambridge, and that if each of them thus chose a specialist from their own graduate membership who would go about from one society to another as a coach, the curriculum itself might gain somewhat over the growing preponderance of social life in these organizations.

Mark Hopkins towered above all his associates in the faculty in our estimation and was, indeed, a remarkable man. Of commanding stature and with an unusually impressive face, stately, with old-fashioned manners, venerable with age, wise and experienced in policies, we all looked forward with the liveliest anticipation to senior year, during which he was the chief instructor. He had a very definite, comprehensive, and coherent system of life and mind, which, although printed later, we got the benefit of in class. His scheme of things was well organized and he was a great believer in making subtle truths accessible to memory by frequent use of the blackboard and diagrams. He was, first of all, a moralist but his thought ranged over the fields of logic, psychology, æsthetics, and even science, in which so little was taught in other courses that he had a very wide domain.

He began by representing man as the top stone in a pyramid of six tiers—gravitation, cohesion (which for him meant crystallization), chemical affinity, vegetable life, and animal life. Each stage was conditioned by the lower and itself conditioned the next higher. These he compared with the six days of creation. He then proceeded to discuss the body, dividing its functions into physiological (digestive, circulatory, secretive, absorbent, etc.) and anatomical (muscular, tegumentary, etc.) with the mind and its organ, the brain, the highest, and here gave hygienic "improvements" and still found his law of conditioning and conditioned. He then discussed sensibility and spoke of the five senses, the very first action of which evoked the innate conceptions of time, space, relation, number, etc., these ideas or categories being fundamental elements of self-consciousness. Thus he tried to account for the origin of knowledge and ideas, of the outer world, and the concept of self, for consciousness is not knowing that we know, as Descartes said, but

a sense that it is I who know. He then proceeded to set forth the involuntary mental activities in dreams, fancy, impulse, and other spontaneities, and introduced reason as a regulative or selective function which should control these. Logical extension he illustrated by a seven-graded pyramid—being, organization, animal, mineral, vegetable, man, Cato; and intention by the same elements inverted, Cato being the base of the pyramid, and being, the apex. Many other schedules illustrated his classification of our mental activities and faculties. Reason, the highest intellectual product, was shown to work both inductively and deductively, the latter being the more important. Instinct diminishes as we ascend in the orders of life and should entirely vanish in man. For this his favorite illustration was a diagonal in a square, at the bottom of which all was instinct while at the top all should be reason. Higher than the intellect stood the will, which presides over all the desires. It was free and yet did its supreme work under the influence of recognized responsibility. The supreme act of the will is choice among the many lower and higher ends, and the highest choice was self-surrender to the service of God. The feelings (if I understand his system, which I have just now reviewed and revived) really stand highest of all, and the noblest of the affections is love fixed on the highest being, God, the supremely good, to love and serve whom is the chief end of man.

No such outline begins to do justice to the range and scope of thought involved in this processional, least of all to its details. Associationism, Berkeleyism, Locke, Porter, and many others were discussed and defended or criticized. With the advent of mind something higher than science can fathom came into the world, and to this revelation added a still higher story. Love to him was not only the fulfillment of the law but should have an Edwardsean scope and be

directed toward all that is, save the sin that man has introduced. Perhaps there could hardly be in the same scope a better introduction to anthropology in general and to the study of psychology in the larger modern sense for minds in our stage of development and which had to be evolved within the lines laid down by Christian thought. We certainly felt at the close that we had been initiated into the great problems of the world, that we had had a bird's-eye view of human knowledge, effort, and affectivity; and the wide range of *apperçus* and the definiteness of the schedules by which they were formulated seem finally to have satisfied the philosophical inclinations of generations of students, whose development along these lines stopped, as it was very prone to do, where he left them.

It must be remembered that experimental psychology was in those days something unknown, as was any study of animals under controlled conditions or much observation of their instincts; that mental pathology, too, was in the crudest state; that the history of philosophy was unknown in this country and nowhere taught unless at Amherst in Seeley's translation of Schwegler, and was looked upon with suspicion as teaching men to hold no opinions. While for Mark Hopkins, on the other hand, there were no open questions but only further details to fill in. We were certainly saved from the great danger of premature specialization which is now so amply illustrated on every hand in this field. His was the method of indoctrination and we were all proud to be his disciples. There could probably be no better succinct interpretation of the universe of thought in the same compass to serve as a background for the clerical profession or missionary work, of which latter he was so long the leader in this country.

Long afterwards, when at the close of the year at Johns Hopkins I was asked to give a three-weeks'

daily course to seniors at Williams, to break up the inveterate custom of the senior vacation there in which some were supposed to write their commencement parts and others to do nothing, I had many confidential talks with Dr. Hopkins, who honored me by attending my lectures. In one of these talks he asked me what I thought of Kant and said that he had never tried to read him except in Bohn's Translation and in that was never able to get beyond the first paragraph of the *Critique of Pure Reason,* which he could not understand. His range of thought and reading included, I think, almost nothing of either the German or the Greek thinkers in this field and his mind was not historic.

His medical studies (for he was an M.D.) inclined him to dwell upon the structure and functions of the body and its parts, and his anthropology (for such it might be named) was really animated by a deep and strong instinct for evolution under the guise of his favorite formula of conditioning and conditioned by which all the human faculties were graded and rated, although he had no use for Darwin or Spencer. His scheme of things was later set forth more systematically than we had it in his *The Outline Study of Man* and *The Law of Love and Love as a Law,* the highest possible human activity being worship, and the scheme as a whole giving ready-made answers to about all the open questions of life, whence came a dangerous sense of finality. It was when in the spring he approached the conclusion of his system, that a great *choice* between the higher and lower ends was man's supreme duty, that his brother, Albert, began his daily prayer meetings.

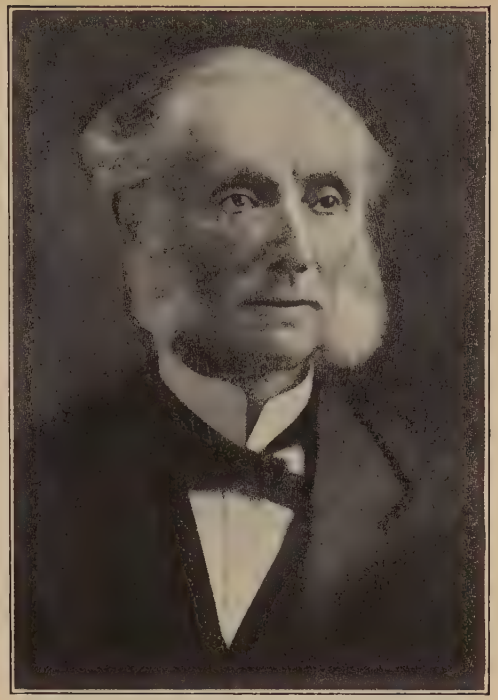
The Hopkins cult has been intense at Williams, though with the lapse of years it is naturally now somewhat abating, but even at this late day I would bring my humble tribute to his memory because I

think, while I should now differ from him widely on almost every point, he did give us a precious set of attitudes and *apperçus* in the highest study of mankind, which is man. I believe my own interests have had a wider range because of him, and although so much that he taught is more or less obsolete to-day, there is now no need so great as that of a man of his synthetic and apodeictic type and with a range no less wide to introduce young people to these subjects. There was nothing inchoate or unformed in his opinions. In class he welcomed queries and discussions and dealt mildly with my own very crass attempts to criticize Sir William Hamilton, Bowen's edition of whom was his text in one course, and my enthusiasm for John Stuart Mill and his criticisms of Hamilton. My admiration for Hopkins was less at the time than that of most of my classmates, who would have applied to him the saying of Hippocrates, "Godlike is the philosopher who is also a physician."

During my sophomore year Professor Charles Eliot Norton purchased a home in Ashfield where he came early and stayed late summers, and with him came his friend, George William Curtis. The latter took one of the humblest and smallest houses in town, half a mile from the village, and practiced the most rigid economy—as rumor had it, to pay a debt of honor for which he was not legally bound. Later he purchased another place and made it into one of the most attractive in town, and here for decades these two men were the center of attraction for many others.

Norton organized his famous dinners for the benefit of the Academy where for twenty-five years the people of the town, and the many who came from a distance as these festivals grew in fame, heard perhaps for two hours after the banquet the most distinguished speakers—Mark Twain, who once came up

Mark Hopkins



John Bascom

The Chief Influences at Williams

Edward John Phelps

Charles Eliot Norton

George William Curtis

Atkinson

G. Stanley Hall

A Summer Group in Ashfield

from Hartford; George Cable from Northampton; Parke Godwin from Cummington; Rudyard Kipling (although I am not certain that he ever spoke there); Matthew Arnold; James Russell Lowell, who after his return from his brilliant ambassadorship to England took a little cottage a mile from the village for several summers where he tried to get back to literary work; Presidents Eliot of Harvard and Carter of Williams; ex-ambassador Phelps, Senator G. F. Hoar, and others. The story of these dinners and the influence of these guests, and especially of Professor Norton, who took a great interest in Ashfield affairs, really ought to be written.

To him I owe a great debt. When I was in college I often spent most stimulating evenings with him. He loaned me books, and I was immensely impressed by the charm of his manner, the wide international range of his personal acquaintance, his admiration for Ruskin, Carlyle, and Dante, which I found very infectious—in very many ways and for many years he broadened and refined my views of life, although I fear in later years there was less sympathy of standpoint and opinion between us. When I was a junior he first assigned me a brief place among the notables at perhaps the very first of the above dinners, introducing me as a sample of the native product of the Academy. It was a most impressive ordeal for me and I well remember how on going to the post office when it was all over, the wide piazza of which was covered with people from the dinner, an old farmer noted for his wit turned to me and piped up before the crowd somewhat as follows: "So, Stanley, they showed you off as a sample product of the 'cademy. Norton reminds me of old B.D., a drummer fer the tannery, who done well till he 'sperienced religion and then became so all-fired honest that he leaned over backwards and tried t' sell sole leather from samples

a little poorer than the average instead of better, as a good drummer should, and so run the tannery all out. I don't know as Norton's 'sperienced religion, but that's what he'll do with the 'cademy if he tells them you're a sample product."

Soon after I graduated, I remember on one occasion coming up to another group in the same place waiting for the mail to be sorted, when this same "uncle," fearing I might be guilty of the mortal sin of being "stuck up" greeted me thus, to the delectation of all the bystanders: "So they say you've really gradooated. I never s'posed you could. I s'pose you think you know it all. But take this from old uncle Bill. If all you knowed was writ in a book 'twould just about go in there" (poking his finger into the upper pocket of my vest), "and if all you don't know was writ in another book 'twould fill Curtis's lawn over there and 'twould be so big that Heenan and Sayers (the two great pugilists of that day) might both put their shoulders under the 'kiver' (acting it out) and boost till they died but couldn't lift it." This was an admonition as wholesome as it was homely, and I hope I have profited by it.

Ashfield is said to be the only town of its name in the world. I can find no account of the origin of the name. It was never laid in ashes by any great conflagration or forest fire. There are ash trees but far less of them than birch, hemlock, beech, maple, or even walnut, oak, chestnut, butternut, elm, or bass. Perhaps it was named from the sporadic and somewhat striking mountain ash with its red berries, which have played such a rôle in mythology, for groups of these seemingly indigenous trees are there. It is hilly and within its six square miles are found great diversities of soil and to some extent of climate, for its altitude ranges from 600 to 1,800 feet above the sea level and the flora of the north and south exposures of side hills

often differ widely. There are also sand dunes, swamps, morasses, and muck fields. Acres are thickly strewn with boulders of the drift period, there are natural as well as artificial ponds, and many kinds of soil. There are many old orchards and long rows of maple trees, both once assiduously set out but most of which are now slowly dying or dead of old age with not much replacement. Nature tends here to "brakes and brush" rather than to grass and crops. My boyhood home was completely burned some twenty-five years ago and the yard and even the old cellar hole are now overgrown with sumacs and other scrubs which together make a jungle of growths hard to penetrate. The rows of apple trees I helped set out as a boy are in all stages of decay and a family of woodchucks have made their burrow under what was once the family living room. Only a few of the hardier perennial plants we set out and cultivated so diligently still survive, but these will soon be crowded out by ranker growths. I found vestiges of the old currant bushes, a clump of tansy, and others of spearmint, peppermint, and an old huckleberry bush, but there seemed to be no trace of the old peach, cherry, and pear trees I so well remember. Of all the "set out" bushes, only the lilacs seem to have increased in vigor. An old man musing on such relics of the home of his childhood has a unique sense of the lapse of time and the changes it brings, but also of the vanity of most effort to permanently affect the course of nature.

Planting, harvesting, lumbering, fence and wall making and wall mending (the former of two varieties—the zigzag Virginia kind, made of ash rails very laboriously split and the "rip-gut" kind of rows of slanted slabs, each held in place by a pair of stakes driven deeply into the ground), finding and bringing in oxen, cows, and horses, as I did as a boy on half

a dozen or more of these farms, to say nothing of hunting, fishing, and trapping, made me early familiar with even the minute details of the topography of this town.

I am ashamed of myself as a psychologist that I cannot explain the strong fascination which I feel (increasing, I think, with years) in revisiting these scenes and loitering about the old haunts and abandoning myself to all the suggestions born of memory and mood which are thus brought to mind. It cannot all be because I thus renew my youth, for to do this brings home also a very poignant sense of my age and the changes which now separate me from my earlier days. I sometimes wonder whether it is normal or morbid to love thus to revive the days that are no more. The luxury of this kind of reminiscence must certainly not seduce us from duties to the present or interest in the future, although I am inclined to think that on the whole it brings a wholesome rejuvenation and is a safeguard against a certain tendency of juvenile attitudes to be entirely lost with age and thus leave the soul more or less desiccated. If this be so, we have here a suggestion for the mental hygiene and therapy of old age.

There is an analogy here between plant and human life in Ashfield. There have been repeated efforts to improve the inhabitants by exogenous cultures. Professor Norton, from the time he first became a summer resident of the town, now nearly sixty years ago, did far more than any other for the moral, intellectual, and civic uplift of the town, entering with zest and wisdom into nearly every local activity and making his influence felt in all issues. He cultivated not a few personal acquaintances and even friendships, brought other men of eminence to reside in or visit Ashfield, and instituted the dinners. Although not himself a man of wealth, he was the cause directly

or indirectly of quite a list of material improvements. But his moral influence was yet greater and more wholesome, many first learning from his example and teaching that there could be both rare virtue and culture quite outside of the church and also that it was possible to be respectable without attendance upon stated worship. He showed there could be political views outside and above the lines of narrow partisanship, that even a democrat could be both virtuous and intelligent, and that an aristocracy existed that was not at all dependent upon wealth. Thus there came to be not a few citizens who were proud to be known as his friends and craved to be on his list of "those who had deserved well of Ashfield." Of course, there were local Philistines who flouted him and all his works and ways and some who even descended to insults and some degree of sabotage, but, on the other hand, he may have sometimes lacked tact and patience, or overestimated the capacity of such a community for improvement. So at least I sometimes thought and even said, but however this may be, he was by far the most useful citizen and the town owes more to him than to any other man in its history.

A little later a signal material "boost" was given the town by Milo Belding, a wealthy progressive silk magnate. He was born in the town and as a stripling in the early teens used to work for my father in the hayfields, as he told me, for seventy-five cents a day. Some forty years after he and his brothers had left the town, his interests and those of his wife, also a native of the town, brought him back and he spent much time and money there building fine houses and developing other properties, greatly improving all of the upper part of the village street, the mill and the pond, starting new small enterprises and bringing much summer patronage to the town. He employed first and last many of the brightest Ashfield young

men in his own business, and gave the town a solid and beautiful library building of granite. Now he is dead and his son has little interest in the town and rarely visits it, and as a result some of his father's houses are empty or for sale, the land he redeemed is relapsing, and most of the values in which he was interested seem declining.

Just so with the death of Norton a few years earlier, the higher civic ideals and public morale lapsed slowly, although probably imperceptibly to the natives.

The population of the town has dwindled for nearly a century, some of the larger old families are entirely extinct, while many if not most of the capable young people have for generations left the town for larger fields. A sturdy remnant still remains as one may see by attending, not the churches, where a few of them are found, but the dances where most foregather. Their spirit, their joys and sorrows, their toilsome life, punctuated none too frequently by amusement and small social pleasures (all with a just comfortable moral tone) was not essentially unlike those of their age when I was young there. I wonder if I did not become an exotic like the "set out" trees and the cultivated plants and flowers and, indeed, whether the higher culture superimposed as nurture upon nature may not be destined to the same progressive oblivion. Certain it is that in some moods I am almost persuaded to go back after sixty years of absence to the old farm again, and there revive the interests and even the occupations of my early years so far as my strength will permit, and plan to end life somewhat as I began it, on a farm close to Mother Earth. As a youth I thought myself most unhappy and this discontent drove me out into the world. Now I am beginning to wonder whether I can ever find real happiness and content anywhere else.

I long since realized that childhood can never be

complete or fully lived save in the country, and I would not now exchange my boyhood experiences with nature and the primitive social and industrial conditions under which I was reared (which are now gone and can never be replaced) for any environment or training I could devise. The best education we can now give in industry, civics, physical culture, economics, morals and the rest, does not begin to equal that afforded by the old New England farm as it existed a few generations ago, and this life when, where, and as I knew it was perhaps at its very best stage of development. What I am realizing now is that with certain mitigations of its hardships such an environment would be no less ideal for the closing years of life (*see* my *Senescence,* p. 415 *et passim*).

Recovering from a severe attack of typhoid fever the summer after graduation (which has left no trace that I know save a certain varicosity) and still being very uncertain as to what I would be and do in the world, I entered Union Theological Seminary in September, 1867. It was then at 9 University Place and contained library, chapel, lecture rooms, dormitories, and boarding hall all under one roof. Here, as in the transition from Williston to Williams, there was a distinct let-down of tone and standard. Quite a proportion of the students here had never been to college and there were representatives of all the leading Protestant denominations, Presbyterians and Congregationalists predominating. The chronic quarrels between conservative clerical graduates, who were in control, and new and progressive ideas, which have kept higher religious education in this country at such a scandalously low ebb and helped to perpetuate the calamitous eternal warfare between science and religion, were greatly mitigated, indeed hardly existed at Union even though the professors held very diverse points of view. Most conservative was Dr. Shedd,

whose strength lay in the exegesis of the New Testament, particularly of Paul. His theology as later set forth in his writings was rigidly Calvinistic. R. D. Hitchcock and Philip Schaff together made church history perhaps the strongest course, and both sought to be objective, Schaff being by far the more scholarly, having free access to German sources of erudition, although Hitchcock, who had a very effective pulpit oratory all his own, impressed us more. The president, Skinner, was very old and taught us homiletics and pastoral theology. After preaching our trial sermon before the institution we visited the president for criticisms. When I entered his study for this purpose, instead of discussing my sermon with me he at once knelt and prayed that I might be shown the true light and saved from mortal errors of doctrine, and then excused me without a word.

The man to whom I owe far more in this group than any other was Henry B. Smith, a foreign-trained scholar, versed more or less not only in systematic theology, which was his chair, but in ancient and modern philosophy, on which he gave us a few lectures quite outside the course. Of him alone I saw something socially. He did me perhaps the greatest intellectual service one man can render another by suggesting just the right reading at the right time. It was he, too, who, seeing my bent, advised me to go to Europe.

For the single year I was in New York I saw much of life. When I left college I had never even visited any larger city, not even Albany or Springfield, so that everything in the great metropolis was new. With classmates or alone I explored New York and its vicinity certain afternoons a week; was employed by the City Missionary Society for a month or two to visit every family in an assigned row of tenement houses and leave tracts and a printed invitation to a

local religious meeting, which gave me a first-hand glimpse of slum life; had a few mild adventures (as when, on breaking into a "wake," I was very roughly handled); and saw certain scenes of intense pathos, to some of which I was able to bring relief from charities. For a few months I was employed, with other classmates, to roam Greene, Bleecker, and other notorious streets and invite street-walkers to the midnight mission for them nearby, where we sometimes took part in conducting the religious exercises. For both these lines of visitation work we received fifty cents an hour, but one may well question the wisdom of employing students of our age in the latter work of salvage. I think no harm came of it, however, even if there were narrow escapes, save in the case of one classmate, who fell and gave up his calling.

During this year I occasionally attended a little club of Positivists who were interested in the study of Comte. I remember particularly Stephen Pearl Andrews, a very ambitious thinker and voluminous writer whose immense book, *Universology,* I tried to understand. George Ripley occasionally came in, as did John Fiske, whose articles in the *Modern Thinker,* a progressive journal printed in many hues of paper and ink, undertook to spread this cult. I indulged my curiosity in church-going, attending now for the first time a Catholic service; a Greek-Russian church on Sixth Avenue; a Jewish synagogue; and the church of the Seventh-Day Adventists and of the Spiritists. I heard the great preachers of the day, notably Dr. Thompson in Thirty-fourth Street, Dr. John Hall on Fifth Avenue, Richard Storrs in Brooklyn, Henry Ward Beecher, and I was particularly fascinated by the radical O. B. Frothingham, many of whose Sunday discourses I not only heard but read as they appeared weekly in print. I attended many if not most of the meetings in the large institute hall of Cooper Union

and listened to the debates, where every form of radicalism was ventilated. One meeting, the occasion of which I forget, was held at the house of Victoria C. Woodhull, in which rumor said Cornelius Vanderbilt, Sr., had established her, where Theodore Tilton was the chief speaker.

I fairly reveled in the theater, which I had never attended before, although my scanty purse compelled me always to be a "gallery god." Here I heard Ristori, Lester Wallack, Charlotte Cushman, Clara Morris, and especially Edwin Booth, who in his new theater just built on Sixth Avenue gave a wonderful Shakespearean revival with Barrett. I was also caught by the *opéra bouffe* of Offenbach and heard the French celebrities, a number of whom it brought to New York, and I made no exception in the case of Tony Pastor and the Black Crook, the White Fawn, and their successors at Niblo's Garden. I joined the Philharmonic chorus, which gave several oratorios during the winter in Steinway Hall. I also heard Parepa-Rosa; Charles Dickens' American readings in New York, given at that hall; attended the German theater near the foot of the Bowery and occasionally frequented the then famous Fulton Street noon prayer meetings and others held in various grog shops near the "Five Points" and in the rat pit of a notorious convert whose name I forget. I remember his once lapsing into the rankest profanity because a deaf hearer in the upper tiers kept asking him to speak louder.

Here, too, I turned an honest penny by teaching history to the daughters of the *élite* in the fashionable school of Miss Greene at 2 Fifth Avenue, and occasionally by singing or playing the organ or melodeon in some mission. Once I paid five dollars to have my "bumps" examined at the Fowler and Wells emporium; had one private séance each with the notori-

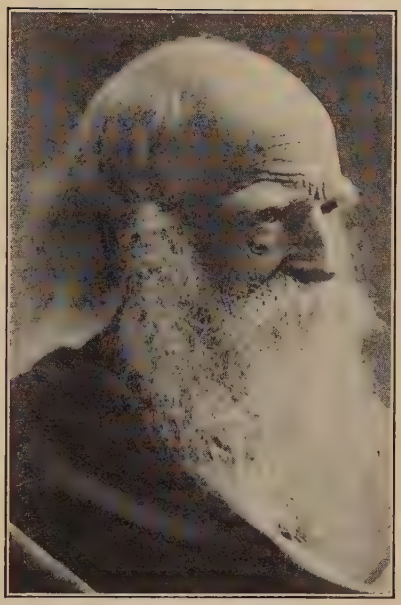
ous mediums Slade, the slate writer, and Foster, who read folded pellets by placing them on his forehead, the methods of both of which have since been exposed. I saw the fire that destroyed Barnum's museum farther up Broadway, where the bears and other animals were cruelly burned alive; frequently visited the nine-o'clock police court at the Tombs and also the old morgue at the foot of East Thirty-fourth Street; the foundling home where unwed mothers were allowed to deposit their newborn infants from the sidewalk in a beautifully bedecked *crêche* and to depart unknown, knowing their offspring would be well cared for. Occasionally I read books from the Astor and society libraries, both near-by. Had the authorities of the seminary or even my classmates any idea of some of these ventures I should doubtless have been summarily dealt with. It was because my life before had been so restricted that all the accumulated curiosity of years to see the world and what it really was and meant was irresistible. It interfered, of course, with my studies, for my interest in these outside things was far greater, but as I look back now I believe that, on the whole, it was the wisest course I could have pursued.

The family of my chum, Mann, belonged to Henry Ward Beecher's church, which I attended and joined by letter. He catechized all candidates from other churches and asked me whether my theological studies had made me more or less devout. I said "less" and he "passed me" with a commendation for my honesty. Through my chum's mother, Beecher consented to receive a group of us from the seminary a certain number of Monday nights and these meetings I shall always remember, for his disagreement with many of the things we were taught at the seminary was very marked. I well recall his study on Brooklyn Heights overlooking the bay. He told us that when he had

thoughts during the week he jotted them down and threw them into a drawer, rising early Sunday to look them over and write out the first pages of his sermon and he then trusted to extemporaneous inspiration. I once took a walk with him across the ferry and into New York and remember how every one—cabman, and ferryman—knew him and had a hearty greeting and how one familiarly slapped him on the back, called him "Henry," and told him he was the only parson whose preaching he could stand.

Late in the academic year, just before the seminary had closed, I went or rather was sent to preach in the little town of Coudersport in central Pennsylvania, although I was not licensed or ordained. Here I "labored" and did my best for nine consecutive weeks, boarding in the family of a very estimable parishioner of German descent, named Metzler. I often hunted pigeons that were there that season in vast flocks. I ministered once to a poor dying woman, being the only one present when she died save a neighbor who was acting as nurse, and conducted her funeral services. While here I received a letter from Beecher, who supposed I was still in New York, asking me to call on him. I immediately took the train, and Beecher told me that through the Manns he had learned that I wished to study philosophy in Germany but lacked the means. When I assented he asked if it would not make me less religious but I said I thought it would make me religious in a larger sense. This he approved and gave me a sealed note to the lumber magnate, Henry Sage, the benefactor of Cornell, which I presented at his office without knowing its contents. To my amazement, after some scowling and a remark to the effect that his pastor took amazing liberties with his purse, he gave me a check for one thousand dollars. Taking my note to repay it with interest, he told me to sail for Germany the next day

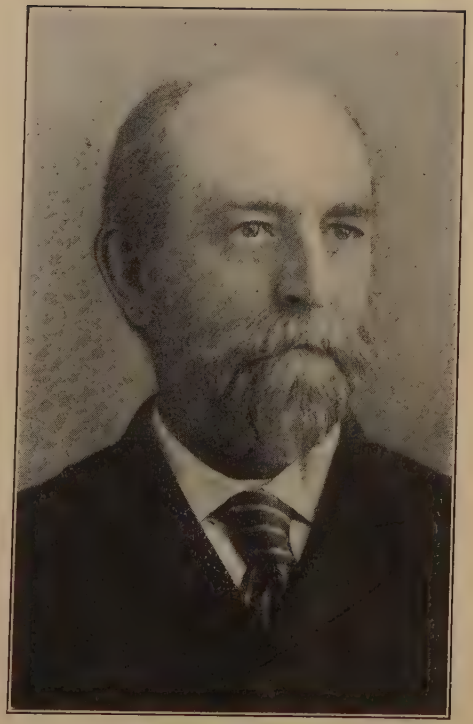
HENRY WARD BEECHER



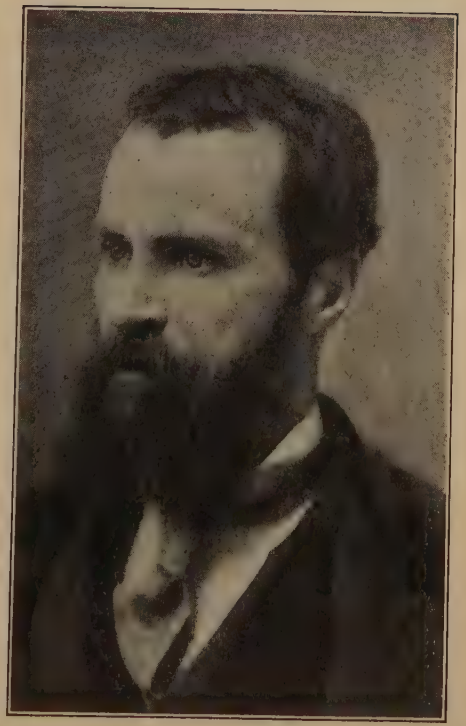
WILLIAM CULLEN BRYANT

GEO. WM. CURTIS

HAMILTON WRIGHT MABIE



HENRY P. BOWDITCH



WILLIAM JAMES

PRESIDENT C. W. ELIOT

and never trouble him again. I wrote my resignation to Coudersport, sailed the next day, and never saw Mr. Sage afterward but paid him the principal and interest from my earliest savings some years later. Thus I owe my first triennium abroad, which began in July, 1868, to Beecher.

To pursue advanced studies abroad had long been my most ardent desire. There was then no opportunity for graduate work in this country and it was my already developed interest in philosophical subjects and the influence of Mark Hopkins that sent me to the theological seminary as affording most nearly what I wanted, although I thought seriously of medicine and less of the law. My parents did not favor Europe but wished me to become a clergyman. My mother, however, when she realized how fixed and strong I was in my desire, applied to her wealthy, childless, and retired brother to help me and I visited him to present my case. He did not, however, see his way to assist me then, even with a loan, although he did so later. I made other efforts but all ways seemed barred. Had they remained so, I should very probably have landed a year or two later in the ministry, near the middle twenties, and settled in some country parish, perhaps for life, would have married and been bound by family ties. But I should have been out of place, a misfit, restless and unhappy. I had no taste or aptitude for parish work, no gift of pulpit oratory, was utterly incompetent and unfurnished mentally to produce the *circa* fifty or one hundred edifying sermons per year, and above all was far too skeptical on the fundamentals of doctrine to hold my place in any orthodox church, while to have "turned Unitarian," as I might then easily have done, would have broken my mother's heart and shamed all my relatives, for that creed was quite beyond the pale. How could I break with those who had sacrificed so much to the

one end that I be qualified to preach the Gospel! Thus just ahead along the road I had started, only misery and stultification awaited me.

Schoolmastering was, to be sure, an alternative, but this had no charm. It was, however, in the New York period that I first began to daydream, very secretly, of the possibility of some time becoming a professor. This would be a way of escape but I dared not confess my ambitions even to my mother for she would have never thought it possible, and in fact there was very little chance that I could ever attain or fit into such a position, least of all with my subject, which was generally taught by the president and which in unwise hands would be very unsafe and unsettling. It was, however, the strength of my interest in this field even more than the fact that all others seemed closed that impelled me to play a desperate chance with fate. While I realized that this step, momentous as it seemed, might prove in the end only a form of self-indulgence, I hoped that it was a real inner call of the spirit. I had entered the broad highway of *éclaircissement* and found the new insights so ravishing that I *had* to go on. If I had not set out from so narrow and saturated an orthodoxy my sense of progress would have been far less, and had I known how many had taken the same road and gone much farther in it I should have felt my problem far less unique.

I had been profoundly influenced by Darwin, Spencer and Tyndall, Renan, Strauss, Emerson, and Carlyle; and had tried very hard to understand Coleridge's *Aids to Reflection,* the wonderful *Essence of Christianity* by Feuerbach, Comte in Harriet Martineau's two-volume abridgment, Schwegler's little history of philosophy, even Hagenbach's history of doctrine, as my marked copies of these last five still attest. I had read Theodore Parker, Tom Paine,

some of Lessing, Schiller, and more of Goethe in translation; and English liberals like Charles Kingsley, Canon Farrar, Matthew Arnold, G. H. Lewes, and some of Ruskin, besides John Stuart Mill, my hero as I have shown before. J. F. Clarke's *Ten Great Religions,* when it appeared, absorbed me, as did John Fiske's *Cosmic Philosophy* and his *Myth Makers.* The poets helped me to clarity, most of all Tennyson, my cheap volume being badly soiled and worn and the "In Memoriam" almost committed to memory. Wordsworth and Byron, but never the Brownings, influenced me somewhat.

My wide and diligent reading, much of which I later realized I had but superficially comprehended, had nevertheless influenced me vastly more than did the topics in the curriculum, and altogether this constituted a most effective disqualification for interest in the ministry of that day and hardly less so for success in teaching in the field of my dominant interests. My old uncle, Orville, said I must be uncommonly stupid if I had not been able to finish my education at this time. My father thought it strange that I could not get what I wanted in this country without going to study with "Dutchmen," while my mother feared it would make me skeptical, never dreaming how far I had gone along this perilous highway, and assured me that her prayers would always attend me. This caused her far more anxiety than my physical safety or going among strangers so far from home. So I embarked without trusting myself to go home to encounter all the family protests and go through the pain of saying farewell. No one saw me off and it was many months before I was to see any one I had ever known before. But strangely enough, everything was so new and absorbing that I never felt a trace of homesickness or even lonesomeness.

CHAPTER V

GERMANY, ANTIOCH COLLEGE, AND EUROPE AGAIN

First impressions at the University of Bonn—Craze of lecture hearing at Berlin—Seminaries of Dorner and Trendelenberg —Student life in Germany—George Bancroft—Kaiser Wilhelm I — Treitschke — Eduard Von Hartmann — Michelet — Kirschmann—Correspondent in the War of 1870, and other war experiences—A foot tour to Switzerland—Back to New York—George S. Morris—Tutoring with the Seligmans—Professorship at Antioch College, founded by Horace Mann—Experiences there—William T. Harris at St. Louis and at Concord—Wilberforce University—Tutoring at Harvard—Europe again—Studies with Wundt, Ludwig—Another lecture craze —Academic freedom in Germany—Experiments with Helmholtz—Lecture theaters—Myology with Hugo Kronecker—Letters to the "Nation"—Marriage in Berlin—Eccentricities of certain German professors—Experiences in Paris, Nancy, Oxford, and Cambridge, and visits to secondary and other schools—Boston lectures to teachers, my first success—Joseph Cook—My acquaintance with William James—Ph.D. at Harvard—New attitude toward the Puritan Sunday, beer and wine, the German *Fräulein*—Sense of limitation on coming home a Teutonophile—The spirit of revolt and my narrow escape from an expression of it.

Entirely alone, I embarked on a German steamer in the early summer of 1868 and took a so-called "intermediate" passage, little better in berth and menu than the steerage. After landing in Rotterdam, I took a very slow Dutch river steamer which required a day to go up the flat region of the Rhine, and made my first stop in Bonn, just before the famous Rhine scenery begins. Here I found humble quarters in the very narrow *Reingasse* with a family who rented

me their small but tidy front room over the little store which was their support, and none of whom, happily for me, spoke a word of English or evinced a desire to learn it from me. Very vividly do I remember my first walks in and about this fascinating old town, and I was located very near the old arched gateway that separated the new from the old part of it. The University would not open for two months so I made frequent excursions—to the *Drachenfels* and the *Siebengebirge* which are spun over with old German myths; to the old monastery with its famous Pilot's staircase, and the long range of hills to the south which Goethe frequented and where he is said to have made his famous studies of the effect of color upon the *gemüt*. I roamed the streets, sometimes with my dictionary under my arm and looked up on the spot or wrote down the many signs over the shops, sometimes conversing a little with some chance acquaintance in a *kneipe*. I of course studied the newspapers, and the first Sunday heard the noted pulpit orator, Christlieb, who was also a professor of homiletics in the University, and was mildly shocked the same afternoon to see him, with his family, drinking beer and watching the dancing in a beautiful woodland resort on the other side of the Rhine which was reached by a densely packed excursion boat.

I finally mustered courage to present the letter of introduction I had brought to Professor Lange, whose long row of commentaries on the books of the Bible, which had been already translated into English, was held in great reverence by the Union faculty. He was a very old but very genial man, received me most kindly, introduced me to his middle-aged daughters, and kept me for the evening meal, giving me my first glimpse of the charming life and disposition of the Westphalians. I also called on the philosopher, Bona Meyer, one of whose books I knew slightly and greatly

admired, but he was preoccupied and received me rather coolly. When the term opened I matriculated and attended the lectures of these three men and dropped into many others, intent mainly on learning the language. I looked up all the new words I could and was greatly helped by the daughter of my hostess, who, I think, had been a teacher.

I remained here only till Christmas and then went to Berlin, where I was very fortunate in finding a place in a German "pension," where no English was spoken, kept by a very dignified Herr Gildermeister directly opposite the *Petri Kirche.* He had four daughters, whose average age was near my own, and had lately married a second wife who had been a teacher in a German higher school for girls. In the evening it was her custom to gather her daughters and the four students to read from Goethe, Schiller, or Lessing. This was, of course, an admirable training in the language for me. Often we accompanied the family to a beer garden, where we spent the entire evening listening to a concert or a play, the admission to which, I remember, was about ten cents. At two of these half out-of-door *Volkstheater* we could hear classic German plays, even *Faust,* for the above sum. Pleasant Sunday afternoons, too, there were often excursions to Hasenheide, Tivoli, Charlottenberg, and other outlying points. Here I made my first acquaintance with the genuine German and specifically Prussian life as it was just before the War of 1870. The father of the family, with his embroidered velvet skull cap, presided with great dignity at the table, always calling upon one of his daughters to say grace and expecting us all to say *gesegnete Mahlzeit* on sitting down and leaving the table. This formality was observed only at the more stately evening meal, where all were expected to be present and on time. There were really six meals—*Frühstück* or coffee and

a *Brödchen* brought by the servant girl, before we were up, into the large front room where we four students slept, each under a heavy feather bed. Then came a ten o'clock *"bischen"* for those who cared to take the ten-minute walk from the University for it; a somewhat formal noonday meal, with another optional *"bischen"* later; and finally the dinner mentioned above. One of the foreign students, an Italian, awoke the rest of us very late one night, by coming in in a state of great excitement, very evidently emphasized by overimbibition, to announce his engagement to a real *Gräfin* (countess). He showed us her picture and descanted on her charms with an enthusiasm that suggested Ariosto and a frankness of the details of their love-making that Petrarch himself would have enjoyed.

Upon matriculation I took the courses of Dillmann and Dorner in theology, DuBois-Reymond in physiology, Westphal's clinics at the Charité. Here each day he demonstrated from the rich material that this vast hospital afforded various types of mental alienation and took us through the wards Sunday mornings, where he was later killed by a lunatic. The surgical course of Langenbach; all of Trendelenberg, the great Aristotelian; one course of Dühring, another of Magnus in physics, hearing Althaus and Droysen on the philosophy of history (the *Grundriss* of the latter I translated) and an occasional lecture of Lepsius, who took us one day through the rooms of the wonderful Berlin Museum devoted to Egyptology, made up the rest of my courses. I heard enough of Steinthal in the psychology of language to get an impression of his personality, and wished that I was able to take the courses of the University professors in dancing and fencing. I also often *hospitiert* with a German friend I met in the anthropological course given by Virchow, the founder of modern pathology,

whose duties at the Reichstag took up much of his time.

Thus if ever there were wild electives, they were illustrated in the above selections of courses, which were quite often unrelated throughout my five semesters. Altogether I think I must have attended lectures seven or eight hours a day, but I had too little experience in note-taking at first to get much benefit from most of them, and some, even those I had paid for, were sooner or later abandoned.

My chief interest and effort centered about two courses, the first that of Dorner, who represented a so-called "mediatizing" theology between the extremes of Hegelism and Schleiermacher's *Reden* and progressive Lutheran orthodoxy. His lectures dealt much with philosophical problems, and these I studied carefully and with the help of classmates' notes so that on my return from Germany later I translated and published them in three successive numbers of the *Presbyterian Quarterly* beginning October, 1872. To the accuracy of this epitome of his general system, after it was printed, Dorner took some exceptions but admitted its substantial correctness. I also attended his weekly evening seminary, the work of which focused on Schleiermacher's *Christliche Glauben* in which he attempts to construe all the articles of religious faith as formulations of his feeling of absolute dependence (*Das Gefühl der schlechthinnigen Abhängigkeit*). This to me was an admirable discipline for it seemed to reduce theology largely to a formulation of man's deeper emotional nature, and Dorner had been his pupil.

The other course I followed intensively was that of Trendelenberg, whose weekly seminary I also attended. He was a large stately man who met his half dozen pupils in his own study, where he sat at his desk in cap and dressing gown, with a large dog he

had taught to curl up about his feet to keep them warm. The seminary took up the various parts of Aristotle's *Organon* in Greek, my preparation for reading which had, again, been inferior to the other German members of this esoteric circle, especially to that of Paulsen, who was also a member and whom I recall as a somewhat uncouth countryman. But I learned more Greek here than I had in all my previous courses and became deeply interested in the leader's great work, *Kategorienlehre,* which I pored over and fancied I more or less understood. I was greatly impressed by his conception of motion or movement as the prime category, in which he differed from Hegel by placing it first and holding that the ideas of both being and nothing were evolved from it. This conception I much later tried to develop in several articles. We were deeply interested in a violent controversy that arose at this time between Trendelenberg and Kuno Fischer regarding the pure apriority of Kant's ideas of the sensory. Trendelenberg's lectures covered the field of Greek philosophy and I followed his courses a second year.

Outside the university I saw more or less of Berlin. Each student was given a *"legitimation karte"* which he could present to the police to exempt him from their custody if held up for roistering or other petty offenses. He was then tried by the University where he might be sentenced to the university prison *(karcer)* for a few days. This card, too, gave us a seat at reduced rates in the *Studenten Logen* at the theater and opera house, where I saw royalty for the first time, as well as the classic German dramas, to which the *Schiller Theater* was devoted, and not a few of the gorgeous ballets and standard operas. All performances began late in the afternoon and were usually over by nine o'clock, often in the summer before it was dark in this northern latitude. The *Volks-*

theater I justified myself in frequenting, to the derision of some of my new acquaintances, because it helped me with the language, and I attended many of the famous Bilse concerts. Here I saw little of corps life but did witness several duels as a guest and also attended, during my stay, several of the larger university *kneipen,* where most of the student body gathered and in which distinguished professors often took part. I was of course impressed by the very elaborate beer rituals, which sometimes required an entire glass of beer to be drunk by every one at a single standing, and then a *kraftige Salamander* had to be "rubbed," everybody banging empty glasses upon the table—customs that have been so often described elsewhere in detail. I often visited the Reichstag and several times heard Bismarck speak from the minister's raised desk at the right of the Speaker, heard the elder Liebknecht and Bebel, and the diminutive leader of the Center, Windhorst. Our minister, George Bancroft, was very hospitable to the few American students and sometimes invited us to his receptions, where on one occasion we filed by and shook hands with the great Bismarck.

The old kaiser, Wilhelm I, was plainly visible during the forenoon from the yard of the University through the window of the palace directly opposite, and one day I remember a very large and breezy student from the west, walking with me during the *akademische Viertel,* remarked that he thought this exposure of the emperor unsafe, saying that he could easily "pick him off" from where he stood with a horse pistol. Soon a bright young student cultivated his acquaintance quite assiduously, often calling at his room evenings and also at my own, and then after a week or two he told us that he represented the police, to whose ears my friend's remark had been conveyed. He was delegated to find out whether it meant a plot against

the Kaiser, and warning us against rash language left us and we saw him no more. This venerable ruler was very often seen on the street, and I was on *Unter den Linden,* although some distance from the scene, when, as Bismarck later described it, "the most beloved of all monarchs was peppered with buckshot like a rabbit by a renegade" (Nöbling) from a distant high window. This was, I think, just after the war. However, this *Attentat* did not prevent the kaiser from his rides alone in a low open barouche, and I even saw him at the "Corso" in the Tiergarten slowly riding back and forth between the large crowds, a target for bouquets, which filled his carriage to more than overflowing.

Treitschke, a very imposing figure (I think it was at this time although it may have been in my later visit), was lecturing with the stentorian but unmodulated voice characteristic of his deafness to immense crowds of students on the destined greatness of Germany, a course in which Du Bois-Reymond gave several of his classic popular lectures which later became so well known on two continents. Kirschmann, the philosopher, had been deposed for socialistic teachings, which was thought by the professors to be a grave infringement of academic freedom, but I made several pleasant, and apparently welcome, calls on him at the very humble quarters he was obliged to assume after his dismissal. He too, was a member, as was Michelet, the aged Hegelian, and Lasson of a philosophical club which met Saturday afternoons in a café on *Unter den Linden.* With several of its members I formed a pleasant acquaintance, and was occasionally invited to their houses; on one occasion, I remember, making my first acquaintance with the German method of proposing a toast to a guest at dinner, which always required a response. Not understanding, I failed to reply, which seemed to be

taken amiss. I spent a number of memorable afternoons at the house of Eduard von Hartmann, the famous philosopher of the Unconscious. He was then a young man with a very long, flowing sandy beard, and as he was more or less paralyzed in his limbs, sat always in a high wheel-chair with his young second wife standing over him, while he discoursed to his visitors. He spoke either inside his tiny house or on the little piazza in front of it to which he was often wheeled. We always marveled that he never had any academic recognition, but the cause was obvious for he had already attacked the "professorlings" almost as bitterly as his master, Schopenhauer, had done.

It was during this triennium that the Franco-Prussian War so suddenly broke out. The universities were closed earlier than usual that spring and I became one of several American correspondents, working under Dr. Jacobi in Berlin, who, I think, gathered and sent all the news of the war to the New York and other American papers. I was first sent to Stettin on the Baltic where it was feared the French fleet would appear and make an attack. After idling for two weeks and sending in various notes and impressions I was dispatched toward the front and was near enough to the battle of Sedan to hear the cannon and see the wounded as they were brought back. Soon, however, the regular correspondents arrived, and either for this reason or because our work was unsatisfactory we were discharged.

I was in Berlin during the whole course of this war and my sympathies, like those of America generally, were with the Germans. I saw thereafter little more of the war than the street sights in Berlin afforded. There was incessant marching of the troops, and when the first wounded soldiers arrived they often rode in open barouches through the streets and

were overwhelmed with gifts of every kind, from fruit to jewels. The streets swarmed with handsome young officers who seemed haughty, very prone to take offense, and often almost came to open hostilities during their discussions in the cafés of *Unter den Linden.* Most impressive of all, however, was the formal entrance of the army through the Brandenburger Thor when they came home crowned with victory, the Kaiser, Von Moltke, and Bismarck leading. There could hardly be greater excitement. Every one was ecstatic. It was, indeed, a crucial moment for the Fatherland, for then it received a new soul, and the great transition from culture to *Kultur,* which has since brought her to grief, if not then actually begun was accelerated greatly. The change, too, was marked and instantaneous. Every Prussian seemed to stand more erect, was less *gemütlich,* and less respectful to foreigners, as one noted even in asking the way upon the street, for a new self-consciousness was born that day in the heart of every German.

One summer I made a memorable vacation journey with a docent some ten years my senior, whose name and department, strange to say, I cannot now recall. He cultivated me for my English, and I, him for his German. We started from Bonn, planning to walk all the way to Switzerland but later often availed ourselves of steamboats and railways. We were both poor and spent the nights generally with some peasant whom my companion inveigled into keeping us, and lived largely on black bread and sweetened bonnyclapper, sampling middays the various Rhine wines. We made one long detour through the Black Forest and the Brocken region and then passed into northern Switzerland. We climbed the Kulm, spent one night with a peasant high on the spur of the Vetterhorn where, I remember, after the

evening meal, in the late and glorious twilight we both had an attack of mountain fever, and sawed and split wood for our host for a long time with fury, exhausted though we were with the day's tramp. One night near the Gründenwald Glacier we were kept awake by the incessant falling of ice boulders where a short time before there had been a serious avalanche. We explored the Vierwaldstätter See and scenes of Tell's life, and I fancy my companion must have been a specialist in mythology for his interest throughout seemed to lie in this field. One day, near the latter part of this trip, we fell in with a solitary pilgrim who joined us for several days. We found him unusually bright and active. Every night he stripped and gave himself a rubdown and we noted his fine form. When he left us he gave us his card, and he proved to be the ballet master of the Royal Opera House in Berlin whom we had both seen upon the stage but had not recognized.

On coming home from Germany in 1871, I passed through a period of acute discouragement for I was grievously in debt. I thought I had a modest appointment in a large midwestern state university, but the president requested me by letter to tell him what I had done abroad, and on receiving my reply wrote me canceling the engagement because he thought the history of philosophy which I wished to present in his institution would "unsettle men and teach them to hold no opinions." I went to New York, taught a few weeks in Charlier's French school for boys but was a misfit and left. In another fitting school on Broadway where beginners in Greek and Latin were taught to talk it I also failed.

I had met George S. Morris, who was then translating *Ueberweg* and was by far the most scholarly man in the history of philosophy that America has even yet produced. He was also an excellent musi-

cian and a man of the keenest æsthetic and the highest moral impulses. He had just received a call to Michigan University, where his life was to be spent, and procured my acceptance as his successor as private family tutor of the five children of the eminent Jewish banker, Jesse Seligman. Here I lived as a member of the family in almost entire charge of the training of three boys and two younger girls, selecting their schools and to some extent their studies, keeping a kind of school for them at home five evenings a week, selecting the two or three theaters they were allowed to attend each week and perhaps accompanying them, sending them away from the table when they were saucy or misbehaved, helping them a little with their Hebrew lessons (for the Jewish Sunday school meant work), and being in a general way responsible for them. I was free during the entire day, during which I sometimes attended lectures in the Seminary and for the rest read mostly in the history of philosophy.

My first evening there one of the boys defied my authority and I finally took him across my knee and used and, as I remember, broke a heavy hairbrush in administering Dr. Spankster's tonic. His shrieks brought the mother downstairs to the schoolroom just as it was over. She stood in the doorway and asked what was the matter. I replied that A. was impudent and I spanked him. He was crying loudly to appeal to her sympathy and I think she wavered. It was a critical moment but she was a sensible and highly educated woman and finally said, "I place the boys entirely under your authority" and left, and I had no further trouble.

I was there sixteen months, during which I took one of the older boys to Harvard and saw him entered and established there, and placed another in New York University. It was during my stay that the family

moved from Gramercy Park to East Forty-Second St. near Fifth Avenue, opposite the place where the ill-fated Windsor Hotel was later built. One summer was passed on Staten Island and the other at Lake Mahopac. It was here, too, that I became intimate with Horatio Alger, the noted writer of many juvenile works, who was tutor in another Seligman family. I also made many pleasant and profitable acquaintances among the Jewish people of New York, and was greatly impressed with Felix Adler, who had just returned from European studies and by his pronouncement in a synagogue had lately shocked his conservative and pious Rabbi father. The accomplished and charming Mr. Costello, who, I remember, was very expert in the billiard room, was another friend. For years I kept up a very pleasant acquaintance with this family, of whom I have only the most delightful memories. German was spoken here as much as English, and Sunday dinners, at which there were always guests, were not only enjoyable but very profitable for me.

It was while I was with the Seligmans that I one day received a call from James K. Hosmer, whom I had met in Europe, the author of *Thinking Bayonets* and other works. He was leaving his chair at Antioch College, Yellow Springs, Ohio, for a larger field and offered me his place there; this I gladly accepted. Antioch College had been founded as a western outpost of Unitarianism which here sought to amalgamate with the Christian denomination, which believed in the Bible without theology. But the fusion was always more apparent than real. Christians had founded the institution some decades before as a result of an enthusiastic campaign to give their clergy and young people a taste of the higher education, and Horace Mann, after he had lost favor in Boston, spent the last fourteen years of his life here as its

first president, bringing, I believe, a substantial endowment fund gathered from Unitarian sources.

The first year I boarded with the president, the venerable George Washington Hosmer, father of my predecessor and teacher of morals and philosophy. My chair at first was a whole settee, embracing English, French, and German language and literature. In one class we read Egmont, Faust, and Götz von Berlichingen; in another, Racine and Molière; and in yet another Shakespeare, etc. The institution was one of the pioneers in coeducation and we had a select body of mature young ladies who came from a wider area and were, on the whole, superior to the men, who were more local. Although there was a large preparatory school connected with it, it had always striven in the academic department, in which all my work lay, for high standards; and although it was small, the little faculty was very ambitious to do the best work possible and there was much talk about "maintaining Harvard standards." The second year and the two later ones I passed here, four in all, were very stimulating although my activities were extremely varied. I was librarian, leader of the choir and sometimes organist, took my turn with, I think, four others in conducting church services on Sunday, held rhetorical exercises evenings, formed intimate personal associations with the students, some of whom were older than I, and taught them as best I could. The second year, when the president left and was succeeded by the genial and expert geologist, Edward Orton, later for many years president of the Ohio State University at Columbus and father of the distinguished neurologist, I was able to devote most of my time to teaching philosophical subjects as I would. I was an enthusiast for Darwin, Spencer, and Huxley, and as the religious spirit was free I could do practically what I would. It was during my stay here that

the first volume of Wundt's *Physiological Psychology* was published, which I devoured. This eventually led me to resign in order to go to Leipzig to study with him.

From Antioch I several times made excursions to St. Louis to spend Saturday evening with the Hegelian, William T. Harris, who had won national fame by his educational reconstruction of the St. Louis schools, which was widely copied. Here Schneider, Thomas Davidson, and a German thinker of much note and ability whose name I forget, and sometimes, I think, Miss Blow of kindergarten fame, listened to expositions of Hegel by Harris, and of Aristotle by Davidson. I may add here that later when Harris established himself in Concord and opened a famous summer school which although rather sparsely attended received great space in the newspapers in the slack summer season, I often attended. He had sought to graft Hegelism as a kind of new dispensation upon New England transcendentalism, but Emerson was too old to be interested and Bronson Alcott "never understood," and so Harris established, one fall, a weekly conference in Boston which began with great promise and was attended, as I remember, by the venerable Professor Hedge and C. C. Everett of the Harvard Theological School; Benjamin Andrews, later president of Brown and of the University of Kansas, but then connected with the Newton Theological School; Professor Francis Bowen, William James, George Palmer, Mr. Cabot, and a few others. There were immense possibilities here. Harris' method, however, was to translate and expound the larger logic of Hegel, and this he did in a somewhat *de haut en bas* way rather more calculated to indoctrinate than to promote discussion. Thus his hearers began to fall off, James even writing his humorous *Some Hegelisms* ridiculing what was taught as almost

sacred in this circle, so that at the last meeting in the spring I remember only myself and a St. Louis devotee of the cult were present. I have always thought that by a different method and by requiring a more independent and less abject discipleship there were possibilities here for a new cult of idealism which might have had a great influence upon Harvard and the intellectual *élite* of Boston.

My work at Antioch was diversified, but although the penumbra was wide there was a solid nucleus to it all. One year I had to teach Anglo-Saxon, of which I knew nothing and had to "cram" from Corson and Marsh. I also had to prepare Shakespearean dramas four times a year to be given in the chapel, the platform of which was expressly built that it might be used as a stage for the benefit of the literary society. I had to choose and cut the play, assign the parts, prepare the scenery, suggest the costumes to the young women who made them, and act in every way as impresario. Occasionally I had to preach in the Unitarian church in Cincinnati, where I met Dr. Mayo, noted for his advocacy of a better education in the south; Dr. Vickers, the librarian, a man of great German scholarship; Judge Stallo, and occasionally spent a Sunday with the Tafts. Ex-President Taft was then a boy and his father, Judge Alonzo Taft, was a trustee of Antioch College.

Once a week during the winter I had to ride seven or eight miles to the colored Wilberforce College and lecture in a popular way to the student body, which was presided over by the really venerable Dr. Payne. Here on one occasion my lectures were interrupted by an interesting outbreak of religious frenzy when an active revival was in progress. There was a temperance crusade in town in which the women took turns in standing before every place where liquor was sold and taking the names of every one who entered,

day and night—a singular craze that spread far and wide.

Some of the older graduates of Antioch had founded and widely advertised "The Great American Literary Bureau," which supplied compositions to students in different colleges for a fee. I was chairman of the college committee to break this up. We found several students in other institutions who had patronized them and who made full confessions, by publication of which we were able to suppress this traffic in brains. But as a result, when I happened to meet the leader of the organization on the street he took a revolver from his pocket and loaded it while passing me. Later, a bullet fired in my direction lodged in the post of the store a safe rod from where I was; another was fired through the window of my room a few nights later; while at a rhetorical evening exercise where I sat on the platform, a bottle of acid was thrown through the window, evidently directed at me but fell short and broke on the edge of the platform, spoiling my clothes and the dresses of some of the girls in the front row.

There were occasionally county educational meetings, and for one of these, I remember, I prepared and gave my first address to teachers. At commencement not only the local but our more distinguished eastern trustees, Dr. Edward Everett Hale and Dr. Bellows of New York, and Robert Collier, another trustee, were generally present for a few days and gave several addresses. They were all very companionable with the instructors. I greatly enjoyed the friendship here of my colleague, Professor Rebecca S. Rice, head of the mathematical department, who had studied in Germany and was a lady of great ability and refinement. Although she was much older than I, we struck up a great intimacy, not only in college but in town and church matters. I treasure highly the memory

of this acquaintance, which lasted not only during my stay here but for many years after she had established a successful private school for girls in Chicago. Here, too, I formed the slight acquaintance of Cornelia Fisher, who was later to be my wife, whose father had retired from business in Cincinnati and lived in town upon a modest income.

The scenery in the vicinity was beautiful, as the college was situated near the edge of a very deep and long ravine and near a famous chalybeate spring, beside which an immense summer hotel had been built. The beautiful walks were always tempting to the students, and the chief disciplinary cases which came before the conservative faculty were the results of incessant "pairings off" of the boys and girls for afternoon and evening rambles. I was always impressed with the way in which the strong feminine element dominated the college sentiment, and felt that the active boy student life that characterized other noncoeducational institutions was lamentably lacking because of this. At my age and stage of development, however, no experience could perhaps, on the whole, have been better.

At the end of the third year I resigned but was induced to stay one more year, and then I started off for Europe and Wundt. I only reached Cambridge, however, for I was met by the offer of an instructorship in the English department at Harvard under Professor Childs, and more specifically under A. S. Hill, and reluctantly accepted in the hope that I might acquire a foothold to teach philosophy, as it was rumored that Professor Bowen was about to retire, which the sequel showed he had no thought of doing for some time. I had met President Eliot the summer before, when I called on him with a letter of introduction from Dr. Hale with a proposition that originated in the mind of my colleague S. C. Derby, that

Harvard should hold entrance examinations outside of Cambridge at different points, of which Antioch was to be one. Dr. Eliot was interested and at once accepted the suggestion, and this was the origin of the system of nonlocal entrance tests, although we were disappointed that other places not including Antioch were chosen.

At Harvard I had, I think, the only work required of the sophomore class, numbering some 250, which I had to divide in three installments coming in successive hours, to repeat the same lesson. There were also in this subject two written examinations of three hours each and four "sprung" tests of an hour each. Each student, moreover, had to write six "themes," all of which had to be corrected, each of course by a different standard and with enough corrections to justify rewriting. All these twelve papers by each student had to be marked, as did each recitation, with considerable care because there were many scholarships that depended upon rank. This drudgery was so distasteful to me that I was very glad that a siege of scarlet fever, which kept me out two or three weeks, gave me a good excuse to send in my resignation in the early spring. But President Eliot replied that the class would "await with equanimity" my recovery and I was expected to finish the year, which I did. It was during this year that my younger brother, Robert, died. He had lately been settled over a church in Cambridgeport and with him I had boarded.

As soon as this year was finished, I hied again to Europe for my second triennium, in 1876, and now had a very definite purpose—to study experimental or physiological psychology with Wundt at Leipzig. He had only lately been elected full professor there over Horwicz, the author of the *Analysis of the Feelings,* and his laboratory was but little organized. Kulpe and Kraepelin were there, and I participated

as subject in several of the experiments. But as the laboratory was open only in the latter part of the afternoon, and especially beause I felt it necessary to ground myself in physiology, I left Wundt and spent most of the day in the laboratory of Professor Ludwig, who gave me a problem in myology, working with me a great deal. When my results were ready he wrote the entire long article himself, embodying his own experimental devices and ideas (for he had worked with me daily) and printed my name as the sole author of it all, stating only in a footnote that the study had been done in his laboratory. Here, too, I did another lighter piece of work on indirect vision with Professor Von Kries, which also found a place in Ludwig's *Archiv.* I made the acquaintance and, I think, heard the first courses of Flechsig on the microscopic structure of the brain, and took one practical course in microscopic histology, at the end of which I had a large collection of slides made by myself which I long treasured. Here I first made the acquaintance of Professor Mosso of Turin, a former student of Ludwig, who made us a long visit to see his friend and later associate, Fenno, who was still there, and I became more or less intimate with Von Frei, who was just beginning his epoch-making studies on the dermal senses.

Ludwig was the leader and one of the founders of experimental physiology, and it was his pupils who filled most of the chairs in that great department not only in Germany but in other countries. He was a charming man, already elderly but with activities unabated, full of delightful reminiscences. He sometimes invited us to his residence, which was over the laboratory. One day while I was there a small mob, inspired by a fiery apostle of antivivisection, attacked his laboratory, and when he came out to expostulate he was hit with a stone; but I think no great damage

was done either to him or to the building. Physiology, of course, is entirely built upon experiments on living tissue and we had to have animals, particularly frogs, rats, rabbits, guinea pigs, dogs, pigeons, etc., at our disposal. But no needless suffering was inflicted and narcotics were always used where they would not interfere with the experiment. It was also then, I believe, the rule of that institution never to use vivisection for purposes of class demonstration but only for research. Ludwig was the most humane of men and was long president of the anticruelty society, establishing a home for stray dogs and cats, drinking places for horses, abolished the check rein, etc.

I always left the laboratory long enough to attend Wundt's lectures, although at that time he was considered somewhat of a usurper, not entirely scientific, and rumor said he had been superseded as Helmholtz's assistant by a man of severer and more accurate methods and greater mathematical knowledge. I also attended Wundt's seminary, in which his method then was to assign reading, expecting each to report in detail. He took incessant and voluminous notes, so that in a sense we read for him; and I have always thought this method was the key to the vast erudition that marks his publications. From the very first he was one of the most popular of all lecturers in this previously entirely Herbartian institution. Students from all departments flocked to hear him for it was a tradition that every German student must know some philosophy. He was an indefatigable worker and we rarely saw him outside the laboratory, although even here he spent little time and did little work, most of it being done in his study at home. He impressed me then as being rather inept in the use of his hands. I only ventured, despite my great admiration for him, to call on him once, when I was very pleasantly received also by his English-speaking wife.

I think his own knowledge of English was slight and I never heard him speak it. In his old age he made the great mistake of bitterly antagonizing his own pupils who had developed the methods of introspection, which has added so much to our knowledge of psychology, and still later was not only one of ninety odd professors who signed the notorious German Manifesto but published a very bitter attack upon Germany's enemies, particularly England. His many students, however, in all lands mourn his recent death.

Very near me lived the famous Professor Theodore Fechner, retired, almost blind, read to incessantly by his devoted wife, and there I was always a welcome caller. He was then preparing his final book on the psychophysic law. It was he, Weber, and the astronomer, Zöllner, who in their later years fell victims, greatly to the scandal of their colleagues, to the American medium, Slade. Zöllner, at his house, showed me messages on slates; a solid wooden ring on a spool, over neither end of which it could apparently go which he said the spirits had put there; a knot tied by them in an endless string, etc. He alone, however, took this vagary into the classroom, and although it drove nearly all his students away, the authorities never violated academic freedom by subjecting him to any kind of discipline. I also found time to take the course of Heinze in philosophy, and occasionally dropped into the little group that followed the lectures of the very aged elder Strümpell and three other popular introductory courses which the leading German professors then always gave because it added so much to their income. Each course required its own fee and all the proceeds went to the professor in charge. These courses were five hours each,—Kolbe in chemistry, His in anatomy, and Leuckart in zoölogy, all three laboratories near together.

During the two Leipzig years I found relatively

little time for reading, save in connection with my subject, the physiology of the muscles, on which I focused as I had never done on any subject before. There was then much interest in hypnotism and I visited Breslau to see Heidenhain's remarkable methods and results. At one time he passed down a line of soldiers giving each a glass marble to hold up and gaze at in a fixed way, as the result of which nearly a third became more or less cataleptic. Both these summers were spent in town. Here I had very little time for amusement except at the *Stadt Theater* and opera house, where I made it a point to see everything I could.

One year was spent in Berlin. Here I undertook first to work with Helmholtz to determine from the study of the shadow of the retinal blood vessels whether the different rays were brought to a focus which coincided with the discs of the rods, and I thus came in slight contact with this great man who had already published his Optics and Acoustics and whom his biographer paid the supreme compliment of saying that throughout his mature years nearly every one of his serious thoughts extended the boundaries of human knowledge. After a few weeks of effort to approach my theme by various methods, during which he spent some time daily in the little room assigned me, he concluded that the above problem I had brought could not be solved. We attended musicales occasionally at his residence.

Back in 1848 or '49, Du Bois-Reymond in his Physiology had said that we should never be able to determine the rate of the transmission of a stimulus along nerves because the tracts available were too short and the motion too rapid, but in 1852, Helmholtz published a four-page leaflet, for a copy of which I paid ten German marks as a model of condensation, in which he did measure this time with the greatest

accuracy on the two inches or less of the sciatic nerve available in the frog. As Helmholtz did not lecture on any physiological subject and as I could not follow his mathematical discussions or purely theoretical physics, I soon gave up the course.

Du Bois-Reymond, at the other end of the large new laboratory building, was giving his famous demonstrations in physiology, preparation for which took most of the time of several assistants. He had evidently been inspired by Czermak, who had previously built a "physiological theater" in Leipzig with a large stage with endless wings, screens, and flies that were also let down from the top and came up through the floor and where every physiological phenomenon was demonstrated. This theater had burned but Du Bois-Reymond was doing just this and was giving a unique series of demonstrations with the abundant aid of vivisected animals and all the apparatus in his copiously stocked cases, helped out by magic lantern slides, etc. My own special work here was with his chief assistant, Hugo Kronecker, on reflex action (where, again, the frog was chiefly used) the history of which I studied very carefully one summer, even visiting the great library at Paris and the British Museum for material, proposing to publish a comprehensive memoir on the subject, which was, however, never quite completed although I later utilized some of it, as did also my Clark colleague, Professor Hodge. The only painful incident here I recall was the wanton destruction of our choicest kymograph curves by a jealous student.

Here, too, it was that one day we were hastily sent home at eleven o'clock in the morning to don evening dress and demonstrate, each what we were doing, to the Crown Prince, the father of William II, who with his wife honored us with a visit. I was just then engaged with a plethismograph and had the

arm of my assistant in a tube filled with water terminating at a point to show the contraction and expansion of the arm due to changes of circulation. As the royal visitors approached, his awe drew so much blood away from the arm to his head that the former shrank till the needle dropped off the drum, and my experiment failed. The professor explained it, to the hearty amusement of his visitors.

Zeller had been called to Berlin but my interest in these new studies was absorbing, and the fact that he was said to be covering the same ground on which he had already printed kept me from hearing him. The same was probably true of Lotze, whom I greatly admired and who had, I believe, already been called to Berlin.

Here, too, I wrote most of the letters and essaylets to the New York *Nation* which made up a large part of my *Aspects of German Culture,* published in 1881. It was during this period that Kaiser William I died and was succeeded by his son, and I well remember the controversy and the bitterness that was visited against his wife because she had imported an English specialist, MacKenzie, to treat her spouse in order, it was said, to evade the German law that no one suffering from a mortal disease like cancer could come to the throne. I remember seeing him ride in the streets of Berlin with a healthy color, later said to have been painted on his face at the instigation of Victoria, who was determined to and did, in spite of Bismarck, become Kaiserin. It was during this stay, too, that I attended the funeral of our minister to Berlin, Bayard Taylor, who had become a great favorite at court. It was here, also, that I again met Miss Fisher, who had come to Berlin to study art, and we were married there under circumstances described in my *Recreations of a Psychologist* (1920) and had our first brief experience in housekeeping.

The lecture method that then prevailed in Germany in philosophic subjects, and still more in theology, was medieval. It strove to present with a systematization too ostentatious, a view of the subject so complete that reading was almost unnecessary. Students wrote with great assiduity the words of the master as dictations, and this he expected them to do save in his *Expektorationen,* which were more spontaneous interjections and were often far more interesting and important. The ideal of the student was to have a full and complete *Heft* or body of notes for future reference. Thus little use was made of libraries. This method did and was designed to produce schools of disciples, and professors then and in these fields often printed only late in life when they were practically done lecturing. Publication was often detrimental to the number of auditors and therefore to the professor's income, so that there was sometimes no other way of getting the ideas of a famous man than from his lectures. Thus reputations often grew great in the perfervid minds of youth in a feudal if not almost a tribal sense, for learning was esoteric and the monopoly of the universities, which considered themselves direct continuations of the "porch," the "grove," and the academy. Its advantage is that knowledge that does enter through the far older and wider ear-gate sinks deeper than that which comes through the upstart source of reading. It gave the great masters a moral eminence and developed the instinct of fealty which youth needs. Books were not sealed to the laity as was the Bible of old, but bad library methods and the social atmosphere of the lecture room, which gregarious youth prefers to book work at home and alone, helped to give the professor something of the oracular quality once held by the priestcraft. Thus for generations the German student lived for the most part in a pre-

Gutenberg stage, especially in the departments of theology and philosophy.

The very formalism with which some of the professors still hedged themselves about added to their luster. The beadle preceded the instructor and ushered him into his lecture room with more or less elaborate ceremonial, carried and laid his manuscript before him together with a glass of water, sometimes shouting *Silentia* to announce his presence and acting as a kind of sergeant-at-arms until the lecture was begun. The professor often wore his academic robe, the luster and hues of which indicated his eminence. He stood or sat on a high dais, usually plain but sometimes much carved. All rose to salute him as he entered and sat only when he nodded permission, perhaps applauded, and always rose to let him retire first. Before my day, in the age of the great philosophers some instructors in this subject were, indeed, Sir Oracle and seemed to be almost mouthpieces of the Divine. Some of them claimed to ignore all other authors and to lecture only upon their own ideas or discoveries, to demonstrate God—as though He had been waiting all these years to have the honor of this proof conferred upon Him—or they established the reality of the world as though it depended upon their ratiocination. It was not uncommon not only to adjudicate on high grounds between science and religion but to issue credentials and letters patent to all other departments of human knowledge, triangulating vast mental spaces, real or assumed, and developing logical grounds for holding what every normal mind has always accepted on the more instinctive and sounder basis of common sense, but sometimes refuting the latter.

In delivery, the German professors, even in my day and still more so earlier, had almost every excellence and every defect. One very popular Heidelberg

savant was said to have laboriously cultivated every rhetorical grace, and he certainly spoke and gestured with great fervor and sometimes pathos and dramatic force, which often entranced his hearers and made them forget note-taking and punctuate his well-rounded periods with applause. In some departments long extracts from German, Greek, French, English, and other languages were read with a style that was very effective, and we are told that French professors at one time especially cultivated these arts and took lessons in voice-building and elocution of the great professors of dramatic art. Very commonly, however, all these devices were utterly neglected by the German *savants.* Some of them either instinctively or, as I used to half suspect, with design developed personal idiosyncrasies and automatisms which would themselves be an interesting theme for study. One venerable man at Leipzig often forgot his collar and necktie—and we fancied also his morning ablutions. His long locks were disheveled and often hung over his face, and were automatically thrown back every little while by a jerk of the head or stroke behind the ear. Another could not lecture without fingering his pencil in a characteristic way and was said to have adjourned his class once when he had forgotten it and no one offered him one. One brilliant professor whom I heard almost ran into the room, beginning as usual *Meine Herren* before he had got to his desk, lectured so rapidly that he seemed to have *Gedankenflucht,* and indeed often had to be reminded by the traditional scrapes of the feet upon the floor that his hour was up. Another habitually gazed at a peculiar knot in a tree outside and was upset when the tree was felled. Another was always turning the leaves of his manuscript back and forth as if trying to find his place, lecturing all the while with great continuity. Another would lower his voice at all important points

so that there was a rush for front seats, and occasionally students would tiptoe close to his desk to get their ears a few yards nearer his mouth lest a precious syllable be lost. One was lame and had to be wheeled in and lifted on to a curious kind of saddle, on which he would sway to the right and left until we feared he would fall, although he clung to his desk. Another stood rigid and immovable and spoke in tones of almost absolute monotony like an automaton, or suggestive of the "machine minister" that Eli Perkins described (although there were no stops in him, revival, funereal, or other). Another sank down in his chair as if abstracted, looking toward his feet, and seemed soliloquizing, sometimes clucking and bringing his heavy hand down with a blow upon the desk —not to kill flies, as it seemed, but to annihilate pessimists, materialists, or other enemies. A Leipzig epistemologist was fond of taking his text from any salient object—the chalk on the blackboard or a bird on the tree outside—thence proceeding to the mysteries of the subjectivity of all knowledge, taking fire as he went along like the wheels of Jove's chariot. He began with a thin falsetto, baby voice and ended in stentorian.

I used to wonder whether some of these learned men thought thus to give greater saliency to their individuality by cultivating a repertory of idiosyncrasies, or whether these were compensatory for a subconscious sense that their subject matter did not by itself sufficiently stand out. Perhaps the number of distractions of this kind that students had to overcome in order to get the pith and drift of their masters measured their degree of appreciation of them, and perhaps it was felt that the students would love the truth all the more because of the difficulties they had to encounter to obtain it.[1] All this, of course, tends

[1] One recalls here the practice of certain pulpiteers a few centuries

to divert attention from what should be the first or inner circle of resources to be exhausted before any of these secondary devices are appealed to, namely, spontaneous stress, inflection, pitch, and timbre. These are the most immediate and effective accompaniments of speech and the best media of psychic infection.

As my second stay abroad drew to a close and I had no prospects of a position I became, again, very anxious about my future, thought much of studying medicine and entering upon the practice of that profession, and finally decided that neither psychology nor philosophy would ever make bread and that the most promising line of work would be to study the applications of psychology to education. With this in view, and also with the desire to see something of great men in other institutions, I spent the last months of this period in travel and in visiting schools. I heard the Passion Play in Oberammergau, which is given Sundays during the summer every ten years, and was so interested that I stayed over a week to hear it again and become acquainted with some of the chief characters. I visited a number of *Gymnasia* and *Realschulen;* spent a few weeks in Vienna, hearing lectures by the venerable physiologist, Kühne, and by the brilliant neurologists, Meynert and Exner. I had a letter to the great surgeon, Bilroth, who, I know not why, was very cordial and several times entertained

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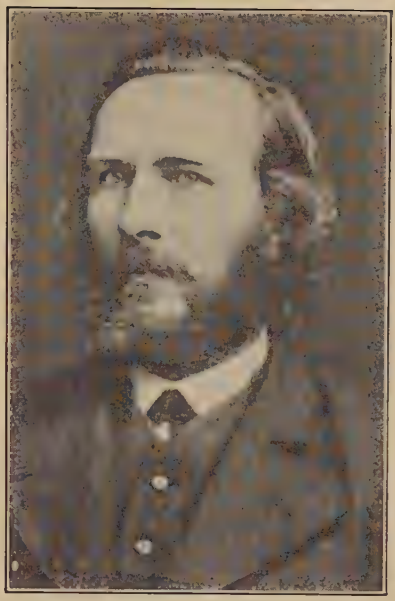
ago whose sermons were punctuated with hieroglyphic signs which meant—here, hem and haw; here, use the handkerchief to the eyes or nose; pause, sniffle, sob, etc.; now fast or slow; high or low; loud or whisper; so that there was a long list of interjections, sighs, gasps, etc., to say nothing of closing the book, folding the hands, kneeling, rolling the eyes, and very elaborate systems of gesticulation—pronate, supinate hand, quivering index finger, fistic movements, horizontal sweeps, etc., the latter being finally mechanized in the device of an American professor of pulpit oratory who constructed an adjustable frame in which the student entered from behind, with grooves for all the important arm movements, for each cardinal gesture; so that being once in it it was said to be impossible to make an awkward movement.

me. He was then, I think, writing his remarkable culture history of syphilis. I heard Kuno Fischer on the History of Modern Philosophy for a few days at Heidelberg and was greatly impressed by his eloquence. I was told that he had a unique rhetorical device behind his desk—a stool with several short steps up which he would climb at impressive paragraphs, when he seemed to rise and come forward. I spent one very pleasant afternoon with him, as I had done before with Zeller. A few weeks were spent in Paris in hearing Charcot and Ribot, but meeting personally only the latter. I visited several *lycées,* particularly the largest and newly built *Janson-de-Sailly,* and studied the pedagogic museum at Paris. I went to Nancy and saw the aged Liebault and was shown through various hospital wards by Bernheim, who in one successfully hypnotized every one of the dozen patients. I then passed to England, calling on Foster, the founder of the new physiology, at Cambridge and Burdon Sanderson at Oxford, and also visited Eton, Harrow, Rugby, and the Merchant Taylors' and Cheltenham Schools. The glimpses I thus obtained of great men were most stimulating, and this superficial study of educational institutions was most fortunate and very determining in my later life.

I came home, again in the depths because of debt and with no prospects, took a small flat on the edge of Somerville, where my two children were born, and waited, hoped, and worked. One Wednesday morning President Eliot rode up to the house, rapped on the door without dismounting from his horse, and asked me to begin Saturday of that week a course of lectures on education in Bumstead Hall, Bromfield St., Boston, under the auspices of Harvard. The university would print and sell the tickets, hire the hall, and he himself promised to be present and

CHARCOT



HAECKEL

ABRAHAM

BILROTH

CARL LUDWIG

HELMHOLTZ

A. ADLER

BREUER

introduce me. There were to be twelve lectures and the fee was five dollars. I think nearly three hundred tickets were sold. Short as the notice was I consented, but requested at the same time to be appointed Lecturer on Contemporary German Philosophy at the University. This course, also of twelve lectures, was duly given, although the classes were small as there was no examination at the end and the course did not count for standing or toward any degree. On Saturday morning, thanks to the prestige of Harvard, I faced a very impressive audience, among whom were Charles Francis Adams, then greatly interested in Colonel Francis Parker's new educational ideas which he was embodying as superintendent of schools at Quincy; Mr. Philbrick, superintendent of the Boston schools; most of the school principals from Boston and the adjacent towns, and others. In President Eliot's introduction of me he stated that Harvard had never been much impressed by pedagogy but I was a young man who had studied it abroad and this course had been instituted as an experiment. In concluding he invited the audience to decide whether Harvard was right in ignoring it or I was right in advocating it. This was, of course, a tremendous stimulus. At the close of each lecture there was an informal conference for those who desired to stay, in which I remember Supt. Philbrick challenged me to find any imperfection in the school system of Boston, declaring that he considered it as near perfect as human institutions could be. Miss Elizabeth Peabody, the founder of the kindergarten in this country, and her disciple, Miss Laura Pingree, I also well remember. The newspapers, especially the *Transcript,* gave great space to each of my lectures, and the attendance was not only maintained to the close of the course but grew. This was my first real success, and I came from Baltimore the next spring to give another

twelve-week course which seemed no less successful. When I left, William T. Harris continued this work for some years in the same place and at the same hour.

It was at this time that the Rev. Joseph Cook was at the height of fame delivering his noted Monday noon lectures to crowds that packed Tremont Temple. He was a man of immense vitality and rare oratorical powers who had studied abroad and come home with the gospel that science confirmed all that orthodox religion had taught. I often heard him, with a growing and very active dissent, and wrote two long and very belabored and acutely critical reviews of his work and his published lectures, which were printed in the New York *Nation* and attracted much attention. I was told they gave him intense displeasure and contributed to the disfavor into which he later fell. Once, soon after this, an usher conducted him to a seat in some public meeting next to me, and when he recognized me he very ostentatiously arose, brushed his coat as if to remove contamination, and took another distant seat.

In my earlier stay at Cambridge I had formed a rather intimate acquaintance with William James when we were both unmarried. I was often at his house, where he was living with his father, Henry James, Sr., by whom I was greatly impressed. James and I even then had many talks and walks together. In a tiny room under the stairway of the Agassiz Museum he had a metronome, a device for whirling a frog, a horopter chart, and one or two other bits of apparatus. I was immensely impressed and fascinated by his personality and looked up to him, who was several years my senior, somewhat as I had done before to George Morris. One summer we spent a week together in a little cottage in the Adirondacks and tramped. I had also met him in Heidelberg, and

we corresponded for years. On my return now this acquaintance was renewed and he took great interest in the experiments connected with my thesis which I was carrying on in the laboratory of his friend, H. P. Bowditch, the pioneer of scientific physiology in this country and later for many years Dean of the Harvard Medical School. It was at this time that I came near receiving a serious injury to my eyes in experiments with a rotating disc, half the sectors of which were black and half of which reflected light directly from the sun into my eyes. Here, too, I formed the acquaintance of Charles Sedgwick Minot, who was then beginning his life study of growth and was a fellow worker in this laboratory.

I had never planned to take my Ph.D. in Germany but did so this year at Harvard, being, I think, the first to do so at that institution. My examination, which was held in Professor Bowen's study, was very impressive to me. It was oral and conducted by Professors Bowen, Hedge, Bowditch, Everett, James, and Palmer, and lasted several hours, at the close of which I felt I had done well; at any rate I passed and duly received my diploma at commencement.

Germany almost remade me, especially the first triennium there. It gave me a new attitude toward life which I can only illustrate by a few items, although these do not do justice to the inner transformations which occurred in me during, and later because of, my period of study there. I fairly reveled in a freedom unknown before.

1. The hated Puritan Sunday which all my life before had been a dreaded day of gloom and depression now became one of joy and holiday recreation. Such claim as the church made on the small number of its devotees (statistics showed then that on an average Sunday only about two per cent of the population of Berlin attended religious service) was over

by noon and in the afternoon there were excursions, plays, games, theaters, and concerts with dancing in the evening. Servants went out and families dined together with friends in public resorts. Soldiers released from their barracks were everywhere; courting and love making were carried on in the open, and young couples seemed not only unabashed but almost fond of having others observe their enjoyment of one another. The population seemed all out of doors if the day was pleasant and all abandoned themselves to joy unconfined.

2. Almost every one not only ate in public but drank beer or light cheap wines, slowly but very deliberately, to prolong the pleasure, and moderately. Intoxication was very rare but nearly all were more or less "let out" *(Ausgelassen)*. Not to be so in some at least very slight degree was almost bad form and suggested lack of good fellowship or of *Gemütlichkeit*. At any rate, it was quite *comme il faut* to be a bit "illuminated" before the day's end. Hence the teetotalism in which I had been nurtured went the way of the old Sabbatarianism and I came to love beer, drank it habitually, and felt it more necessary in that somewhat depressing climate than here. To thus banish reticence and restraint in ourselves and to see others do so brings out the more fundamental traits of character. We know and are known better. "The bonds of friendship tighten when they are wet." To drink a "Prosit" with a companion breaks up the dead level of utter chronic sobriety. It gives to conversation a heart-to-heart frankness, and the festive spirit thus engendered irrigates the rest of the week and makes the dull routine of a simple life more tolerable, while, as the world is now seeing, to be robbed of a mild tipple that has become habitual tends to breed a spirit of social, industrial, and even political unrest.

3. Hitherto girls had played an extremely small

part in my life, but more than one German Fräulein appealed to me in a new way and I cultivated several and found them surprisingly interesting and even responsive. Their great sentimentality gave them a new charm and I lost my obsession of bashfulness in their presence. Indeed, with two of these *Mädchen,* one after the other, I first realized what love really meant and could do. Both were as susceptible as I was and many were the walks, talks, and excursions we had together. There was no engagement and no plans of life together but we were devoted to each other with a *carpe diem* abandon to the pleasure of the passing hour, and with the last of them a correspondence was maintained for some time after our tearful parting when I left for home. This experience had a profound effect upon my character. I realized that I was a man in the full normal sense of that word. Certain old shackles had been shaken off and I compared myself to the Marquis of Penalta and acquired a deeper sense both of sin and righteousness and virtue than I had ever attained before. I have never seen either of these girls since but both married not long afterward and both had large families. I still have two faded photographs and certain memories which have prompted much thinking along lines too taboo to indicate here. I learned how great an enlightener love is and what a spring of mind Eros can be, how its idealization is effected, how essential it is for a complete life, and how in the process of years its object can be changed and it can become in the end all the stronger and deeper for having had its initial fling in the earlier years of nubility when its physical urge is nearest its apex, especially if it is followed by years of chaste sublimation. Not only did these companions facilitate my use of German but, what was vastly more important, they awoke capacities hitherto unusually dormant and repressed and

thus made life seem richer and more meaningful. If passion was aroused, the power to moderate and control it was also gained and I have never had regret but only a sense of enlargement of soul from it all.

4. I came home feeling that I had also attained maturity in my religious consciousness, where most suffer such dwarfing arrest. I had felt the charm of pantheism, which has inspired and exerted so much of its subtle influence, especially through the medium of poetry, in those whose creed abhors it; of agnosticism, more or less common but so strangled by religious affirmations; of even materialism, for I had read Büchner and Moleschott; had wrestled with Karl Marx and half accepted what I understood of him; thought Comte and the Positivists had pretty much made out their case and that the theological if not the metaphysical stage of thought should be transcended. But the only whole-hearted scheme of things which I had accepted with ardor and abandon was that of an evolution which applied no whit less to the soul than the body of man. This was bedrock. Darwin, Haeckel, and especially Herbert Spencer seemed then to me to represent the most advanced stage of human thought.

My remote ancestors, I suppose, were Saxon and not Norman and I sometimes wondered if I had become so ardent a Teutonophile by way of atavistic regression, although this would be a far cry. Perhaps, on the contrary, it was because beyond the Rhine I found, so highly developed, qualities that I lacked but admired; namely, a capacity for sentiment, *Gemüt* or the power of abandonment to the moods, feelings, ideas, and companions of the present moment. At any rate, I longed to spend the rest of my life in that country and planned several quite unpractical ways of doing so. Crude as some, at least, of my German friends both in and out of the university thought me,

and only partially *verdeutscht* as I was, when I came home I felt the whole atmosphere of this country, and especially that of staid old New England, most oppressive and not only unappreciative of about all I most cared for but distinctly critical if not derisive of the new views, tastes, and *mores* which I brought back.

It is no wonder that this was the period of my life when the youthful spirit of revolt was most intense. The narrow, inflexible orthodoxy, the settled lifeless *mores,* the Puritan eviction of the joy that comes from amusements from life, the provincialism of our interests, our prejudice against continental ways of living and thinking, the crudeness of our school system, the elementary character of the education imparted in our higher institutions of learning —all these seemed to me on my first, and still more on my second, return from Europe not only depressing but almost exasperating. Most of all, we were so smugly complacent with our limitations, so self-satisfied with our material prosperity, and so ignorant of Europe save as tourists see it. I fairly loathed and hated so much that I saw about me that I now realize more clearly than ever how possible it would have been for me to have drifted into some, perhaps almost any, camp of radicals and to have come into such open rupture with the scheme of things as they were that I should have been stigmatized as dangerous, at least for any academic career, where the motto was Safety First. And as this was the only way left open, the alternative being the dread one of going back to the farm, it was most fortunate that these deeply stirred instincts of revolt were never openly expressed and my rank heresies and socialistic leanings unknown. This was largely because I found in the family of the Seligmans, where the parents were German born and bred, and later at Antioch, so liberal and

congenial an atmosphere. Long after my second homecoming I clung to the title of the old farm as a refuge of last resort, and when all the buildings were destroyed by fire, as late as 1890, I felt that a retreat in possible disaster was cut off and that I had only then landed high and dry on the hither side of my Rubicon.

CHAPTER VI

JOHNS HOPKINS UNIVERSITY

Charles Pierce, George S. Morris, and William James my predecessors—Origin of *The American Journal of Psychology*—Pedagogy added to my title and work in that field—The first American laboratory in psychology—The epoch-making higher story built on our educational system by this university—German influence and methods—Distinguished group of students in psychology—Its previous low estate in this country—Scope of my courses—Relation to other departments—Impressions of colleagues: Sylvester, Gildersleeve, Rowland, Remsen, Martin, Brooks, Haupt, Adams, Ely, Wood, Williams, Warren —Woodrow Wilson—Attitude of Baltimore toward the University—Distinguished lecturers from outside—The relations to government science in Washington; to the Peabody Institute—The religious environment—Characterization of Gilman's policy—Research fellowships—Journals and other modes of publication—Efforts against excessive or premature specialization—The higher pedagogy—The Hopkins trustees —Death of my parents—Scope of my course and list of original publications of this period.

In 1881 I was surprised and delighted to receive an invitation from the Johns Hopkins University, then the cynosure of all aspiring young professors throughout the country, to deliver a course of twelve semipublic lectures on psychology. The University at that time was adding another story to our educational system. I understood that this opened the ultimate possibility of a chair and spent the entire summer in the work of preparation. At the close of these lectures I was asked to teach a half year, after which, to my great delight, I was appointed full professor for five years with the salary of four thousand dollars, then very generous. Thus in 1882 ended what

might be called my long apprenticeship of fourteen years since graduation, during much of which I had been very uncertain of my future.

Charles Pierce had been for years at the Hopkins occupying a tentative position, one of the ablest and most original philosophic minds this country has ever produced, and I think at one time an intimate friend of Chauncey Wright and John Fiske, two of the most brilliant men in the Harvard circle though not of the faculty. My old friend, George Morris, had taught several half years at the Hopkins, and William James had given lectures there. Each of the three was older and abler than I. Why the appointment, for which all of them had been considered, fell to me I was never able to understand unless it was because my standpoint was thought to be a little more accordant with the ideals which then prevailed there. To the companionship of these three men, particularly that of Pierce, who lived for years across the street from me and of whom I saw very much, I can never express my indebtedness.

Against my own wish, my title was "professor of psychology and pedagogy" although my activity at the Hopkins in this latter field was limited entirely to semipublic Saturday lectures to which teachers were admitted. I think that at that time there had been no chair of pedagogy in the country save at Michigan, and of the many patterns Johns Hopkins set to other institutions this was one destined to remarkable development. Pedagogy is now represented in practically every institution for higher education in the land by a chair, department, or even an entire school which attempts to be as professional as the schools of law, medicine, and theology. My lectures here were very largely confined to the history of education and its philosophy and psychology, with a description of contemporary systems of primary,

intermediate, and higher education in different lands with also historical surveys.

My chief time and effort, however, were focused on psychology. I was given a laboratory, first in the physiological building and then a more generous one in the physics building, and one thousand dollars a year for its equipment. I was enabled to develop not only the first but by far the largest and most productive laboratory of its kind in the country up to the time of my leaving, although of course at the present writing there are a number that exceed it. Toward the latter part of my stay here I had a memorable call one Sunday from J. Pearsall Smith of Philadelphia, an entire stranger to me who had learned something of the Hopkins work in psychology. He suggested that I found a journal and then and there gave me a check for five hundred dollars "as a starter." I had long desired to do this and President Gilman favored it, for the establishment of departmental journals was one of the prominent items in the program of the Johns Hopkins, so that at last, with great trepidation, I printed and circulated a prospectus, gathered material, and issued the first number, printing, if I am not mistaken, the enormously excessive number of 3,000 copies and finding, when this number was distributed, that the bills for it alone footed up to seventeen hundred dollars. There were few subscribers and the deficit had to be made up from my own savings. I went through another period of disillusion and depression but brought out the successive numbers, changing publishers and slowly learning how to cut down expenses. But the subscribers were still few.

To continue here the later history of *The American Journal of Psychology,* the first in its field in English, I may add that at one time it had cost me eight thousand dollars more than it had brought in,

and although we were not able, after we entered the war, to publish the six hundred pages a year planned, it now in its thirty-second volume (1921) has paid for itself and brings a modest profit—all without advertising itself or anything else. It was also very difficult to find good material. As the earlier volumes show, most of the small-type part of it, a half or more, which was devoted to reviews, was written by myself. I read voraciously and epitomized over a wide field, always insisting for myself and for the many others who in later years contributed to this part, that the writer should first and chiefly résumé in his own most salient phrases the chief positions and results of the author, adding more briefly and set off in another paragraph whatever criticisms he saw fit to make. In the early years especially I sought to give the *Journal* wide scope, including the most salient tendencies in religious philosophy, logic, æsthetics, the significant work in the domain of psychiatry, child study, anthropology, etc.

In my experience and observation, journals of this kind go through three stages more or less marked by years: first, there are many subscriptions from libraries, other institutions, and individuals who take it more or less experimentally; the second year many of these drop off, not finding in it just what they expected (to this class belonged my patron, Pearsall Smith, whose chief interest was in psychic research and who gave up even his subscription when the *Journal* criticized this movement); while those who subscribe the third year generally stay on, and only then is it possible to make more or less reliable estimates for the future. As a journal of this kind continues, and if it does represent a successful movement, the sale of sets as the years go by becomes an increasing source of revenue, and to my persistent sanguine expectations of a larger field I owe the fact that we

have an abundance of left-over copies of nearly every number from the first so that we are still able to supply sets.[1]

Johns Hopkins, who died a bachelor at the end of a very successful business career in Baltimore, was said to have given little consideration, even in the latter part of his life, to the disposition of his estate and to have at first treated as chimerical the suggestion of a friend that he found a university, so that it was said to have been a great surprise to most of his acquaintances when at his demise he was found to have left some seven million dollars to be divided equally between a hospital and a university, leaving his trustees very large discretion and prescribing almost nothing as to the character of the institution.

The Board decided not to infringe upon the capital for building but to use only the income. Accordingly, while the hospital put a great deal into buildings and delayed its organization, the University was very speedily opened with only three small new ones, and most of the departments were quartered in dwelling houses rented for their various purposes.

The first Board of Trustees was happily selected from among the very best citizens of Baltimore and they realized that the chief of all their duties was to select the right president. Therefore, after much travel and counsels widely and wisely sought and given, they invited D. C. Gilman, a Yale man who had been one of the pioneers in the effort to establish physical geography as an academic course and who had had three most successful years in building up the University of California, to take charge of the university part of the new foundation. As the sequel

[1] Since writing the above, I have (not without certain pangs like those of a parent who has brought a child to maturity) transferred the *Journal* to Professor E. B. Titchener of Cornell, with whom it seems to be having a new lease of life and achieving a larger usefulness in its field.

proved, it was probably the wisest selection that could have been made. Dr. Gilman was profoundly impressed with the low standards of American education which had for many years compelled so many of those who wished to specialize to pursue their postgraduate work in Europe where, in his phrase, the apex of our entire educational system had too long been found. He felt, therefore, that this new foundation should be devoted chiefly to graduate work and that professors must be chosen with special reference to their promise or achievements in original research, that their salaries should be higher than were paid elsewhere, and that his first task was to comb the country for the best talent. In this he proved to be a sagacious judge of men and did not hesitate in several cases to bring experts from Europe, so that for years the quality and productiveness of this faculty in their modest quarters were far and away beyond anything the history of this country had afforded.

It was also necessary to attract fit student graduates. Hitherto the few who had pursued nonprofessional graduate studies at home had done so at their own alma mater, where they could receive but little attention and were often obliged, especially in the larger institutions, to do drudgery as assistants at a barely living wage. Promising young men of this class who wished to go on and could not afford to do so abroad had thus had a pitifully hard time. Accordingly, another of Gilman's innovations was to establish twenty fellowships paying four hundred dollars each, on which it was then possible to live the nine academic months in comfort. This scheme President Eliot disparaged as "paying students to come." This policy thus attracted a remarkable if not very large group of the most gifted young men from all parts of the country intent upon taking the higher degree of Ph.D., which had almost never been

given here. In this Gilman was inspired by German ideals hardly less than the founders of most of the older American universities had been by the English, or Jefferson in the founding of the University of Virginia, which set the fashions for southern institutions, by the ideals of the French.

Thus during my stay, which covered most of the decade that, I think, marked the acme of Johns Hopkins' preëminence and leadership, the student body was hardly less remarkable for quality than was the teaching force which, with a few exceptions, was made up of young men. At any rate, the intellectual activity here was intense and the very atmosphere stimulating to the highest degree.

The inception of the University (1876) occurred so soon after the Civil War that there was much sectional feeling. Many of the most intelligent citizens of the city could not understand why there were so few southerners or even Baltimoreans and so many northerners in the faculty, and some of them did not scruple to apply the term "Yankee" or "carpet-bagger" to us, while our social recognition by the natives came slow and late. Even this was perhaps, on the whole, favorable for devotion to work. I often had occasion to remember the fact that immediately after the Franco-Prussian War, Bismarck rebuilt the University of Kiel to show Denmark what Germany meant by the higher education. So, too, he rebuilt Breslau as an object lesson for the benefit of Dorpat, a Russian university, and lavished French indemnity money upon the splendid new installation, the University of Strassburg, to make plain his purpose to the French. He adopted a policy that looked toward making the University of Berlin almost as central for Germany as that of Paris was for France and accordingly had called from outlying universities many of their very best men to Berlin, giving

the professors there, for the first time, free entry into court life. But these new social diversions did not, on the whole, contribute to intellectual productivity, a fact that Lotze noted and sadly commented on.

At Baltimore I was allowed almost absolute freedom to teach not only as, but what I would. I even held weekly clinics at the Bayview Hospital for the Insane, of which until the hospital was complete and the medical staff organized I was made *locum tenens* superintendent, perhaps the only layman in medicine to occupy such a position. Here I not only had to determine what patients should be discharged, engage the purveyor, but appoint the resident physician in charge, at first Dr. Noyes, who was also my student.

When I began I found in my department a group of students drawn there mostly, I presume, by the fame of my predecessors. Some of the students came later and nearly all of them have since attained eminence. Among them were John Dewey, J. McKeen Cattell, H. H. Donaldson, E. C. Sanford, W. H. Burnham, G. W. T. Patrick, Joseph Jastrow, James H. Hyslop, Y. Motora, E. M. Hartwell, Hume, M. I. Swift, and J. Nelson. Many others from other departments took courses and minors for their degree with me. The only criticisms of which I felt conscious and embarrassed were those of Professor Martin, who felt that experimental psychology, especially in dealing so largely with the senses, infringed upon his department of physiology; and of Professor Gildersleeve, who always questioned my right to teach Aristotle and particularly Plato in English, and complained of interference because he sometimes read with his Greek classes some of Plato's Dialogues in the original. But these strictures, though genuinely felt and reiterated, were never seriously urged in a way to in any degree modify the work as I had planned it.

During these years, in addition to psychology I taught the history of philosophy. The history of the work in this field in our country and its colleges is of remarkable interest, and of it I have twice attempted a survey.[2] In the beginning, in the seventeenth and during the early part of the eighteenth centuries, almost nothing but deductive logic was taught, and this, even at Harvard, was an appanage of theology and Biblical exposition on the principle *bonus grammaticus, bonus theologus.* After the advent of Whitfield and the great religious awakening which followed, it was felt that every study of man and mind should focus on the heart and result in conversion, and even the place of logic was sometimes challenged. This stage is well represented in Durfee's *Early History of Williams College,* which is so largely devoted to revivals, which he makes of central importance, saying that its dark years were those of spiritual drought when "professors were hardly distinguished from the body of the impenitent." Hitchcock in his *Reminiscences of Amherst* said that "its religious history is more important and interesting than anything pertaining to it" and he enumerates fourteen revivals up to 1863. The third period marked the advent of the study of ethics, which came in despite much opposition because it was thought to imply that morals were sufficient for salvation and that a good life could be lived without piety. It was even called *impietas in artis formam redacta.* It soon, however, became the leading topic in this field. Many colleges were denominational and theology has always been jealous of philosophy, while in the most advanced institutions and among our most scholarly writers in

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[2] See my "Philosophy in the United States," *Mind,* vol. 4, p. 89 *et seq.;* also "On the History of American College Textbooks and Teaching in Logic, Ethics, Psychology, and Allied Subjects," *Proc. Amer. Antiquarian Soc.,* April 25, 1894.

this field there was almost always a strong polemic motive against pantheism, materialism, and other heretical opinions. Where the best work was done in this field it was, I think, always focused upon some group, most commonly Locke, Berkeley, Hume, and Kant, with epistemological implications. I tried, however, to teach the whole field of the history of philosophy in such a way as to incline my students to a sympathetic attitude toward all philosophical systems and to make them in turn idealists, positivists, sensationalists, pantheists, materialists, associationists, and all the rest to the end that there be no indoctrination or effort at discipleship but that each should choose his own position intelligently and according to his own predisposition, an ideal which I freely expressed and which was never opposed. Accordingly, in the seminary we focused our reading and discussion one year upon a few of these attitudes and the next year upon others.

The psychology I taught was almost entirely experimental and covered for the most part the material that Wundt had set forth in the later and larger edition of his *Physiological Psychology*. Here I spent much time in my laboratory, where there were always students engaged upon specific problems of research, some of the first of which were published in *Mind* and most in later years in the early volumes of my *American Journal of Psychology*. Dr. Edward Cowles, who had already done notable work at the MacLean Hospital in Massachusetts, of which he was the head, a much older man than I, was enthusiastic enough to spend a term or two with me, and all the above students did their best to add to the sum of human knowledge. Many others, too, from outside were more or less interested in this new departure, and I remember particularly brief and sometimes repeated visits from Major Powell, the head of the

anthropological bureau in Washington, who did more than any one to establish that department on a solid foundation and to have the life of the American Indian duly studied and set forth before it was too late. He was marvelously successful in winning large grants from Congress. Other welcome visitors were: Dr. Weir Mitchell of Philadelphia; Dr. Beard of New York, who was one of the pioneers in this country in the study of hypnotism and of whom I saw much both in Baltimore and New York; Dr. Billings, the distinguished head of the medical library in Washington; Lester Ward, who repeatedly came over from the Capital, sometimes taking charge of my seminary at my request; and Professors James and Palmer of Harvard who were more than once my guests and to whom I always insisted on giving over my lecture hour, a courtesy which, I remember, they explained they could not reciprocate, because of certain rules, when I visited Harvard.

I saw a great deal of Simon Newcomb, who was for years Hopkins lecturer in astronomy and deeply interested in psychological topics. He once joined me, with President Gilman, in starting a systematic visitation to all the advertising spirit mediums, astrologers, fortune tellers, etc., in Philadelphia, where Gilman left us after an interesting private demonstration along this line by Keller, who then had a theater of his own for magic. We also spent an interesting afternoon with Yost, who dealt in all kinds of sleight-of-hand material, being himself an adept. Newcomb and I continued these visitations as far as New York. Interest in these matters was then greatly stimulated by the Seybert Commission for the investigation of occult phenomena which, I believe, financed this trip.

Among my colleagues here I became most intimate with the following: Herbert Adams, whose department was one of the largest and, with Richard T. Ely,

the economist and sociologist. They had a well-equipped suite of rooms. Ely was one of the pioneers in the study of contemporary social and industrial conditions and, with Adams, kept a very elaborate system of clippings. Adams's method was to have each student study the history of the locality from which he came, and in that way he produced an imposing series of volumes, in the publication of which he had outside assistance from Washington and sometimes from other cities and states. Adams was a disciple of Blünchli, whose library came to him and whose motto, "History is past politics and politics is present history" was printed on the wall.

I saw much, too, of the brilliant Paul Haupt who had already done signal work in the department of Semitic languages and who every summer made a trip to Europe, bringing back the latest information concerning men and things, philosophical and psychological. Of the great Sylvester I saw but little. He was the only man in the faculty who was venerable with age. When he was brought to this country he had an international reputation as one of the leading mathematicians of the world. He was unmarried and a man of remarkable eccentricities who even essayed poetry and, on social occasions, would sometimes retire silently to a corner or suddenly leave, even a dinner, because a new idea had come to him. On one occasion, I remember he told us, the idea had such force that to work it out adequately he had to sit up a good part of the night with his feet in warm water to check the rush of blood to his head. Sometimes these new concepts visited him on the street, where he would stand like Socrates in the market place, apparently forgetting to go home or even unaware of where he was. He was later recalled to Oxford, England, and I last met him by chance at a railway station in Cologne very late one night, with many

pieces of baggage scattered about him. He had missed one or two trains and seemed rather helpless, and I was able, by missing my own train to Paris, to gather his belongings and see him safely aboard for his destination. He died soon afterwards.

Professor Rowland, then the most brilliant physicist in the country, stood out prominently among his associates, and in my time devoted his attention mainly to his famous "gratings." I should have seen little of him but for the fact that my laboratory was in his building. He was erratic and moody but supercharged with new ideas, and was in the most vital mental touch with everybody in his field throughout the world. He even made it almost a boast that he neglected his students for his researches, but he always inspired them and they constituted a coterie by themselves. To hear him conduct an examination for the higher degree was an experience never to be forgotten, such was his mastery of his subjects. A very characteristic incident told of him was that when the Niagara Construction Company, financed largely through the agency of my college classmate, F. L. Stetson, had built its tunnel and constructed the enormous turbine at the bottom of it, the weight of the turbine and that of the heavy steel shaft which came to the surface were found to cause such friction that the power produced was disastrously less than had been calculated. They appealed to Rowland, who studied the subject one evening and gave them a formula to turn over the turbine and have the water strike it from below, after turning upward, in such a way as to exactly balance the weight and remove all friction. For this work he charged ten thousand dollars, which they refused to pay. When the case came to court the counsel for the company called Rowland and, thinking to embarrass him by challenging his modesty, asked him who was the first physicist

in the country. He replied "I am," which was true; and so made it impossible for them to argue that his services were those of a second-rate man. When we asked him afterwards how he could make such an answer, he replied that he was under oath and had to tell the truth.

H. Newell Martin, a brilliant Englishman and, like Bowditch, a former pupil of Ludwig, established at Baltimore the second chair in physiology in this country, according to the stricter experimental school which sought to base it more rigidly upon chemistry and physical experimentation to a degree that sometimes suggested the old iatric stage in the history of medicine. He had also had a good training in the basal field of biology, which Bowditch lacked. I always felt that he was never fully acclimated in this country or quite happy in Baltimore. His early demise was a great misfortune to the institution, but during his career there he trained a very able if not large group of students who passed on the light to others.

Walter K. Brooks I had known in Williams undergraduate days, where he had been the life of the Natural History Society. Very inept socially and disinclined to society, so that he never felt the partial ostracism of the old southern families toward us northerners, he was able to devote himself more assiduously, not only days but nights, to his work. He must have known all of Darwin's writings almost by heart for they and their implications were the chief theme of his seminaries. He was not only a born naturalist and a diligent investigator but also a thinker who always impressed me as masterly in his ability to handle ideas. I saw more of and owe more to him than to any member of the faculty there.

As a younger man in this group I was immensely impressed by Gildersleeve, the famous Hellenist,

although I had very little personal contact with him. A hero of the Civil War on the southern side, he was not only the oldest American member of the group but was a favorite in Baltimore, and I always suspected that his friends, if not he, felt that he should have been the president of the institution. He was, however, always most loyal to Gilman and his policies, and with the very able Ira Remsen, head of the department of chemistry, who later became president, was perhaps most influential in their support. He was a very brilliant conversationalist, witty and quick at repartee, could be very satirical, and was the idol of all his pupils. Not only an able and productive Greek scholar, he had a keen and very highly cultivated literary sense and was a man of wide general reading.

The University had tried to bring back to this country my most intimate friend in Leipzig, Caspar René Gregory, a remarkable man with a no less remarkable career. Going to Germany at an early age to study the New Testament with Tischendorf, he became almost infatuated with German life and ways, and when his great master died he became his literary heir and from docent rose very slowly to the dignity of full professor, the only pure-blooded American to ever achieve this distinction. Harvard had sought in vain to bring him back to fill the chair left vacant by Professor Thayer, an eminent American scholar in this field whose daughter Gregory later married. Nothing could wean him, however, from his Teutonophile sympathies, and in the late war he espoused the German cause and, old as he was, was appointed to decorate the graves of German soldiers, in which act he was fatally shot. An able substitute, however, was found for this chair at the Hopkins in J. Rendel Harris. It was, I think, while he was at Baltimore that he discovered in the East and edited an important New Testament manuscript. His stay at Baltimore

was not long, however, and he later returned to England. It had been the university policy to establish, with his chair and that of Haupt and that of ecclesiastical history given under Adams, a kind of foreschool of theology, but the country was hardly ripe for this more severe scientific departure.

I was also more or less intimate with Professor Henry Wood, head of the German department, and his very cultivated German wife; also with the brilliant George Williams, who had just come from a protracted study of petrography in Germany and was invited to represent that department, which he did for some years until his most untimely death; and with Professor Minton Warren, the Latinist, who had been called from Harvard, which eventually won him back.

Among the students who took minors with me was Woodrow Wilson, older and more advanced than most men in Adams's department. I well remember a long Sunday afternoon walk and talk with him in which he debated with me the question of majoring in psychology, although I felt that his mind was already made up not to do so for his previous studies and his southern instincts and family traditions already inclined him too strongly toward the historical and political field. Had he chosen psychology, he might never have been President; but, on the other hand, if he had, he might have learned to do better teamwork and have been more ready to compromise and concede. Nothing could have been more sublime than his lofty moral leadership during the war, and when the party prejudice of the hour is forgotten the country will be proud of most of the history that he made. No one was ever received with such acclaim by the people of England, France, and Italy as he, for it was felt that he represented a new stage of democracy into which so many countries where it was

unknown before were entering. Of all the score of nations involved in the war we alone, despite the enormous sacrifice of blood and treasure, sought nothing whatever in the way of territory or indemnity but insisted solely upon equity between nations and security for those that were small, striving only to apply the simplest precepts of morality between man and man to nations, in place of the law of the jungle which had hitherto prevailed. We warred only against war, and it is inevitable that sooner or later the American people will coöperate in some effective insurance policy against the cruel law of might against right, and will then give to Wilson[3] a sublime place in history.

At Baltimore it was the custom to hold stated evening meetings at which the professors or younger investigators in each department tried to set forth the results of their investigations in a way to make them intelligible and interesting to specialists in other departments. This organization was maintained with some difficulty against the tendency for those in each department to confine their entire activity and limit their interests to it, and despite President Gilman's favor it languished and was given up. There was also an informal faculty club which met evenings at different houses, at which each of us in turn provided not only refreshments but presented some topic in our own field. I well remember one occasion at my own house on Eutaw Place when the interest in telepathy was perhaps at its height and was more or less interesting to men of science in general. I was able to communicate thought from one corner of the room to its diagonal opposite by a very simple trick which

[3] From him I received a personal note of reminiscence of Hopkins days written, very significantly, on November 2, 1920, the election day on which his party and policies were so overwhelmingly defeated at the polls.

it baffled the ingenuity of even Professor Rowland to detect and which led him, with the facility that has so often characterized physicists (Crookes, Barrett, Lodge) to have speedy recourse to belief in occult forces.

It was one important item in the Hopkins policy to attract distinguished men from other universities and from foreign countries for brief courses of lectures, which were generally open to the public as well as to students. Among those who came thus were: Herbert Spencer, Huxley, Cayley, the distinguished mathematician, friend and, in a sense, rival of Sylvester; Lord Kelvin (Sir William Thomson), Matthew Arnold, James Bryce, E. A. Freeman, the historian; Wallace, whose name will always be associated with that of Darwin; James Russell Lowell, and many others. In the early days, I believe, the brilliant and lamented Sidney Lanier, a favorite son of Baltimore and the south, was one of these, and in my day Corson gave literary courses for years lasting several months. Indeed, nearly every one of note who visited Baltimore was invited to speak in the public hall, where all the professors who could be persuaded to do so also gave brief public courses two or three times a week for some weeks. The register shows that I gave three of these courses. At all of them the average numbers attending were always a matter of permanent record in the bulletin, which was another unique stimulus to us to hold our audiences.

Gilman was particularly fond of bringing to Baltimore and exploiting there in this way not only all men who had already attained eminence and whom the repute or the resources of the University could induce to come, but he always had an eye for young men who had done something that marked them as promising, so that despite the relatively isolated intellectual situation of Baltimore the atmosphere was

always charged with stimuli and emulation. He always apparently believed that outside the field of the severe training which modern specialism requires there was a wide penumbra of the mind, the cultivation of which was accomplished by suggestion, *aperçus,* hints not too elaborated or methodical, the rousing, exciting quality of which is a little like a tickle when compared with the tactile sense; and here, too, his intuitions, as in so many other respects, were sound and more or less original and he had the courage to trust them.

The proximity to Washington and its vast collections and libraries was a great stimulus to some of the departments, as it certainly was to mine, although the sentiment of the leaders of Hopkins' physical science always tended to maintain a critical if not *de haut en bas* attitude toward the governmental representatives of science. To several of the latter, however, I am greatly indebted, perhaps most of all to the late Otis T. Mason, the venerable anthropologist, with whom during most of my Baltimore days I was more or less intimate.

It was a delicate matter to make a normal and wholesome adjustment between the University and the richly endowed Peabody Institute, which had a library far exceeding that which the Hopkins would be able to gather in a decade and which also, under the guidance of its able and sagacious if not a trifle jealous administrator, gave every year popular courses of public lectures to which the most eminent men were attracted. Gilman, at the outset, renounced the policy of duplicating the Peabody books at the Hopkins, only three blocks away and, not without some difficulty, secured for us professors some slight modifications of the rather strict rules for the use and especially the drawing out of books, so that we had, under certain restrictions never wholly removed,

rather free access to the Peabody shelves. Perhaps still more tact was required to have the University men occasionally appointed to give Peabody courses, which were well paid for and which it was the fashion of Baltimore to attend—as it never became, save for a certain group of intellectuals, with the open Hopkins lectures. Gilman had the sagacity, however, to more or less overcome the difficulties here, and several of us gave lectures in the large Peabody hall and thus made a larger surface of contact between town and gown, a matter in which Gilman was always intensely solicitous.[4]

He always seemed to me remarkably successful in the difficult task that would have confronted any New Englander at that time in winning the goodwill of the citizens of this metropolis so southern in its sentiments. Not only, however, were the Board of Trustees broad-minded men and above all local prejudices but there were many others who were both intelligent and wealthy whose goodwill it was of the utmost importance for the University to win. In this task I think, if the story of these days is ever fully told, it will appear that Gilman was remarkably successful. Although he and even his very tactful and cultivated wife were never able to penetrate quite to the heart of social Baltimore, and although a few of even the wealthy citizens were never entirely won over, Gilman's success in this field is well attested by the many gifts and donations from old residents, and the success of the University later in raising funds in connec-

[4] On one of these occasions, with much apparatus on the stage I demonstrated association time with my assistant, later an eminent college president, as my subject. I shouted "dog," thus starting the Hipp chronoscope with a lip-key, and he was to respond with the very first word mine suggested, and as quickly as possible for the time was measured in thousandths of a second. He, as most would do, responded "cat"; to "boy" he reacted with the word "girl"; but to "glass" he shouted back "beer," to the great merriment of the audience, and it then and there came out that he was an entirely unsuspected member of a *Kneipe*.

tion with its transplantation to a suburb of the city was to no small extent an after-result of his wisdom; so that any one looking over the reinstallation of the University with its new grounds and buildings might well exclaim with thoughts of Gilman, *Si quaeris monumentum, circumspice.*

The religious barrier to complete sympathy was another difficulty. Rather extreme conservatism in religion focusing in Presbyterianism was characteristic of Baltimore, as of so much of the south, and the difference in the attitude of believers in such creeds and the standpoint of nearly every member of the faculty was immense. And here, at least in more than one case which I know, the situation might have been gravely aggravated but for Gilman's tact. Occasionally a clergyman went out of his way to attack evolution, materialism, or pantheism, with more or less of an implication that the University stood for them. A few of the professors were inclined to "talk back," but these differences never came to the point of open antagonism. Several of the members of the faculty affiliated with church work—Haupt, Harris, and Wood, for example, with the Quakers, a sect with which the founder was affiliated; Morris and others with the Episcopalians; and the very founding of the Semitic and exegetical departments focusing in Bible study, liberal though their chiefs were, contributed to this end. A few of us conformed by attending some church. This I did at Gilman's request, and listened to Dr. Slocum, later for many years president of Colorado College; and to the very able and eloquent Dr. Gonsalus. He perhaps more than any one else has for three decades been the leader and light of the more liberal but not Unitarian religious life of Chicago, and has exerted his influence even more perhaps—at least more popularly—than has Dr. George Gordon in Boston, my pupil for a short time in the

Harvard period. Thus many possible sources of friction were mitigated or obviated.

There could, of course, be no compromise on the negro question, and I do not think that any student with colored blood was ever admitted to the institution in my day. Several of us joined clubs, especially the most important one, "The Baltimore Club," and thus in every way practicable the points of social contact were developed. Thus the very slow and hard work of educating a large and intelligent community to appreciate what was at first a somewhat exotic university was most auspiciously inaugurated, and Baltimore has surely, if slowly, learned to be proud of this great foundation.

True history in the field of higher education was perhaps never so hard to write as in this country, pervaded as it is with insidious biases for competing institutions, and the day of impartiality and competency of judgment will dawn late; but just in proportion as love of the highest learning and research prevails, Dr. Gilman's qualities will become the ideals of leaders in our American system.

Gilman was essentially an *inside* president. His interest in the work of the individual members of his faculty did not end when they were engaged, but began. He loved to know something of their every new investigation, however remote from his own specialty, and every scientific or scholarly success felt the stimulus of his sympathy. His unerring judgment of men was triumphantly justified in the achievements of those he appointed; and although in selecting young men he had to walk by faith, he nowhere showed more sagacity than in applying individual stimuli and checks, so that in this sense and to this extent he was a spiritual father of many of his faculty, the author of their careers, and for years made the institution the paradise and seminarium of young specialists. This

made stagnation impossible, and the growth of professors there in their work was, I believe, without precedent. When petrography, a pregnant new departure in science, knocked at the Hopkins door in the person of the brilliant and lamented George Williams, it was opened in welcome, and the country was stocked with young professors from his laboratory. The new psychology, for which other institutions had shown only timidity, was here given its first American home. Now the productivity of our scores of American psychological laboratories rivals, if it does not exceed, in volume that of Germany. Clark University is, in a sense, an offshoot of the Johns Hopkins, for here, small as it has so far been, the inevitable next step of attempting university work was first tried although here there was no undergraduate section. History, biology, mathematics, physics, chemistry, the Romance and Teutonic languages, Sanskrit, Semitic studies, and, more lately, several departments of medical and other study, have all felt the new life that came from the seminaries, clinics, laboratories, lecture rooms, and journals which began at the Hopkins. In every one of all these lines of work the personality of its president was an active and beneficent influence.

Dr. Gilman was not preëminently an outside president or an outside organizer. He was never known as an apostle of uniformity. It could never be said of him that there were dollars and students in all or even in anything he said, in the sense that these considerations determined either what was said or left unsaid. He had, I believe, no place on any committee of ten, twelve, or fifteen, and had no share in the unhappy business by which in some parts of the country secondary education has been dominated by or subordinated to college interests or requirements. He believed in individuality and held that institutions were made for men, and not men for institutions. He

knew no selfishness or interinstitutional rivalry; nor did he take part in the tendency to absorb or incorporate other foundations into a great educational trust. His faith and services were for the university invisible, not made with hands, which consists in the productive scientific work of gifted minds wherever they are, sympathetic by nature and made still more so by the coördination of studies, as one of the most characteristic features of our age.

As a member of his faculty I smarted not infrequently under the faithful wounds of this friend; but these were only wholesome and made me all the more his debtor, and the state of my department in the country now owes more to him, I think, than to any other man as our American system of education is organized. To advance even a little what he did would satisfy all my own administrative ambitions. He had optimism enough to sustain his own spirit and that of those about him under painful disappointments and idealism enough to make a long and magnificent fight against the materializing tendencies too prevalent here in higher education, and to demonstrate that often the most ideal thing is also the most practical.

The new policies which mark Gilman as the most creative mind in the field of the higher education that this country has yet produced may be summarized as follows. First of all, he realized that as civilization advanced, all critical decisions and new steps must be made by experts who could command all the available knowledge in their field and perhaps add something new to the sum of the world's knowledge. To have made a contribution to this, however small, marks the real attainment of majority in our world. Scholarship is a prime condition but erudition is not enough; each must have had the unique experience of having contributed some tiny brick, however small, to the

Temple of Science, the construction of which is the sublimest achievement of man. In everything else there may be docility but at some point each must be an authority and have passed beyond apprenticeship, and be able to light his own way with independent knowledge. Then alone is he a real citizen in the culture world of to-day. Thus intellectual creativeness must be made the real standard and test of any system of higher education of to-day. Anything and everything must be subordinated to this, and Gilman must have had great satisfaction in realizing that in this kind of productivity the Hopkins University, at least for a decade or two, was the leader and pioneer in this land. He was never dismayed to be told that this ideal was "made in Germany." It found the warmest response in every able and original mind in all academic America, as is abundantly witnessed by the fact that the Hopkins fashions have been so generally cultivated in later years by all our higher institutions. And although this tradition has been sedulously maintained and so far as possible is ever advancing at Baltimore, the leadership of this institution is now relatively less pronounced only because its ideals have been so infectious in so many other centers.

Another item in the Gilman policy was to avoid excessive or premature specialization. It was to this end that so many popular courses were established and so many eminent men were brought to the Johns Hopkins for brief periods; that the interdepartmental scientific club was established, where specialists tried to interest those in other lines in their own work; and that the *Bulletin* and *Circular,* in which each was urged to present in brief and popular form the results of his own investigations, were maintained. This work, although welcomed by broader minds, always encountered some opposition and more inertia. Students were prone to focus on their major subject and

neglect the larger opportunities thus provided. Some of the professors found it irksome to summarize their technical studies in a way intelligible to cultured minds in other fields. A few thought it rather beneath their academic dignity to explain in courses open to the public what they were doing. But these methods of mutual acquaintance were always diligently fostered by Gilman.

A college course was established as a link between the stage of intermediate education represented by the City College and real university work, and this was done not without some latent rivalry. It made largely a local appeal and grew in recognition and favor slowly but surely, until it became not only a very important bond between the city and university but gave the unique kind of training that real university work needed and presupposed and without which it would have been an air plant.

The religious policy of the University had, of course, to be acceptable to the Quakers or Friends, which was the sect of the founder and was dominant in the Board and very influential in the community. Fortunately, however, this faith stressed dogma but little although it revered the Scriptures and the inner light and was friendly and sympathetic to the philological study of both the Old and New Testament, and not unduly appalled by the higher criticism.

There were those who advocated that the Hopkins should make special efforts to affiliate with the southern colleges, so many of which had been fashioned more or less upon the University of Virginia, which Jefferson had built on French models and which was the most formidable competitor of the Hopkins in the south. This policy Gilman never favored because he wished the institution to make a national rather than sectional appeal and because he would in no way interfere with the prestige of the University

of Virginia. He realized also that the standards in most southern institutions were not so high as those in the best northern ones, and so shrank from having Hopkins regarded as in any sense a southern institution, which it never became.

He never entered the mad race for dollars and students, which was the ultimate aim of nearly everything that college presidents said and did. His appeal always was to quality rather than to size and numbers, and his very temperament made him keenly sympathetic with the nonbelligerency and cult of peace which characterized the Quakers, so that he shrank constitutionally from all antagonisms. Just why he never introduced physical geography, a subject of great significance and academic possibilities already so well developed in Germany, and which he himself had represented in his early days at Yale, no one ever knew unless it was that he felt that any manifestation of partiality for his own chair might be construed as selfishness.

Again, I never quite understood why he opposed my earnest wish to give a course on the history of universities and learned societies, which seemed to me an essential part of the work of pedagogy, but preferred that I should limit my activities here to primary and secondary education. Perhaps he distrusted my competence, and if so he was probably wiser than I, although I always felt that it would require a remarkable degree of self-abnegation in any college or university president to develop such a course in which his own policies might perhaps be shown to be imperfect in the larger light of history. Or perhaps he felt that if such a course were given it really ought to be by the president himself, although I had no reason whatever to suspect Gilman of wanting to preëmpt this field.

After his resignation and shortly before his death

he spent a few days with me in Worcester, where he gave us a memorable address, and talked far more freely with me as a more humble endeavorer in his own administrative field than he had ever done before. He loved the Hopkins so much that neither he nor his very accomplished wife, both northern born and bred, were ever able to leave it, and both, I believe, died in Baltimore. He had suffered intensely from the financial reverses the University had met with owing to the fact that the founder had insisted that so large a portion of its funds should remain invested in the B. and O. Railroad. This the elder Garrett, a magnate in that field, had made successful with the aid of government loans during our Civil War but it later, partly owing to the mismanagement of his son and successor, came to grief, so that Gilman's ulterior plans, much as he had done, remained unfulfilled; while the twin institution, the hospital and medical school, was but little affected and grew in importance in later years to a degree Gilman had never anticipated. Just how much he had to do in the early shaping of these ideals no one ever knew. The history of both these foundations, if it is ever adequately written, will show the epoch-making significance of Gilman's ideals, even nowhere yet fully realized. It is a great pity that he himself left no very intimate story of his life work.[5]

[5] Gilman established, if he did not introduce, the custom of printing in the Register the academic record of each professor and graduate student, and also calling attention in his annual reports and otherwise to the special achievements in research in each department, one year stressing some and in other years other of the branches, and always publishing the names and number of student attendants upon each course. This was another fine psychological spur to wholesome emulation so characteristic of the first president of the Hopkins. He also arranged the order of the courses in a somewhat Comtean, hierarchic way, for example, mathematics, physics, chemistry, biology, language, literature, history, sociology, with psychology last, and always favored early publication of every result of investigation, so that besides the journals established in various departments there were often long series of monographs. He was always sympathetic and glad to listen to anything we would tell him about our work and always seemed to be doing

The Board of Trustees was certainly very sagacious in trusting and giving him a free hand to the very end. Judge Brown, the famous war governor of Maryland, who presided over the Board, always inspired his colleagues with the sentiment that it was their duty, having wisely chosen their president, to follow his lead in all matters, so that I think the faculty always felt that there was never any possibility of a successful appeal from the executive head of the institution to the Board; nor, so far as I know, was there ever any disposition to make one. The faculty to a man, I think, were loyal, both to the policies and to the personality of their president, whom they learned to trust no less implicitly than did the Board.

It was during the latter part of my stay in Baltimore that my mother and, two years later, my father died. Both were in comfortable health nearly up to the last. They had both passed through so many years of great anxiety for me that it has always been a source of great satisfaction that they lived to see me settled and my children born; and even my father and uncles, at first skeptical, were finally convinced that I could "earn a living without working on a farm." My mother and, to a less extent, my father, were always keenly interested in everything I did and even attempted to read everything I wrote, and in one of her letters my mother describes the mingled pleasure and pain with which she at length came to realize that my effusions were in a field where she could not, with the best effort, follow or understand. She also never entirely outgrew the suspicion that I was wandering from the ways she thought orthodox, but even with this fear there was later blended a certain com-

his best to understand it, no matter how technical it was, so that we all felt, along with a sense that he always had the final decision with regard to all our appointments and promotions, that he had a personal as well as official satisfaction in anything we did.

pensation in the growing trust that even if I had departed from the ancient faith I might, after all, be right. She once told me that she tried very hard to be my disciple, but with only partial success. My father in his later years seemed to quite capitulate, I thought rather suddenly, from a critical attitude which he long felt but never undertook or was able to bring to full expression, to a feeling that about such matters I really was much more likely to be right than he, and one or two later expressions of this general trustfulness, characteristic probably of his age, I shall always remember as somewhat pathetic.

Near the end of my stay in Baltimore, Dr. George H. Emmott came from England to teach logic and ethics, and a little later Edward H. Griffin, who had years before been my Latin instructor at Williams, was appointed to teach ethics to the undergraduates. The former was, in a sense, my assistant, while the latter was more or less independent and in a few years developed a course that was admirably calculated to introduce young men to the study of moral, epistemological, and historical problems of philosophy.

The range of my courses, which seem now more extensive than intensive, is set forth in the Eleventh Annual Report (1886) as follows:

I. A two years' course of Pedagogy of one lecture per week with reading directed by the professor. The work of the first year is mainly historical and that of the second year is mainly devoted to the special topics of school work. The chief subjects treated and reference-lists used in this course have been printed ("Descriptive Bibliography of Education," Boston, 1886, p. 309), in a form which may serve as a report of progress in the effort to work out an educational course adapted to the needs of an American university so largely engaged in preparing young men for the work of higher and special instruction; and as a printed illustration of the way in which the instructor desires to

treat each topic, reference may be found in my booklet entitled *How to Teach Reading and What to Read in School*, p. 40, Boston, 1886.

II. Historical philosophy, in a three years' course of one lecture and a seminary per week, with reading courses and other exercises. The first year's work ends with Plotinus; that of the second year with Hegel; and the third year is devoted to recent and contemporary philosophical thought, including, as in the previous years, ethical, æsthetic, and religious philosophy, all treated from the standpoint of modern psychology and, so far as is practicable, with references and reading in English.

III. A three years' course in Psychology, consisting of two lectures with reading club and seminary weekly and daily laboratory work. The first year is devoted to the senses considered experimentally and anatomically, but from the standpoint of Psychology, with reference to æsthetical and educational applications and to morbid phenomena, and concluding with an extended treatment of the field of binocular vision, with parallel reading of Helmholtz and Hering. The second year takes up first the four topics of space, the time-sense, physiological time, and the psychophysic law, on each of which the vast body of recent experimental literature is epitomized as far as possible. The last half of the second year is devoted to association, memory, habit, attention, the will, and feelings successively, and treated experimentally. The third year is occupied with the topics of instinct in animals, psychogenesis in children, the psychological parts of anthropology (including animism, the chief mythic cycles, traditions, rites, and ceremonies), and morbid psychology (especially aphasia, hypnotic and allied states, paranoia, epilepsy, hysteria, paralysis, etc.) with constant reference to their anatomical correlations where such are made out, and to their educational, hygienic, and prophylactic applications.

Activities of the Baltimore period are represented by the following papers by my students and myself:

How to Teach Reading and What to Read in School, Bost., Heath, 1886.

Methods of Teaching History, Ginn, Heath and Co., 1883.
The New Psychology, *Andover Review,* 3:120–35:239–48.
Optical Illusions of Motion, *Jour. of Physiology,* 3:297–307 (With H. P. Bowditch).
Motor Sensations of the Skin, *Mind,* 11:557 (With H. H. Donaldson).
Bilateral Asymmetry of Function, *Mind,* 9:93, 1884 (With E. M. Hartwell).
Studies of Rhythm, *Mind,* 11:55, 1885 (With J. Jastrow).
Hints Towards a Select and Descriptive Bibliography of Education. Arranged by topics and indexed by authors. Bost., Heath, 1886 (With John M. Mansfield).
Intermittent and Variable Sensory Stimulation (With H. B. Nixon).
Dermal Sensitiveness to Gradual Pressure Changes, *Amer. Jour. of Psychology,* 1:72, 1887 (With Y. Motora).
W. H. Burnham.—Memory: Historically and Experimentally Considered, *Am. Jour. of Psychology,* 1:39–90; 2:225–270; 431-464; 568-622.
J. McKeen Cattell.—Experiments on the Association of Ideas, *Mind,* 12:68 (1886).
Mental Tests and Measurements, *Mind,* 15:373 (1889).
The Time It Takes to See and Name Objects, *Mind,* 11:63 (1885).
The Time Taken Up By Cerebral Intelligence, *Mind,* 11:220, 377, 524 (1885).
Edward Cowles.—Insistent and Fixed Ideas, *Am. Jour. of Psychology,* 1:222.
John Dewey.—Psychology of Kant (Ph.D. Thesis).
The Psychological Standpoint, *Mind,* 11:1 (1885).
Psychology as Philosophic Method, *Mind,* 11:153 (1885).
H. H. Donaldson.—On the Temperature Sense (Ph.D. Thesis), *Mind,* 11:399.
J. H. Hyslop.—On Wundt's Theory of Psycho-synthesis in Vision, *Mind,* 13:499 (1887).
The Problem of Space (Ph.D. Thesis).
Joseph Jastrow.—The Perception of Space by Disparate Senses, *Mind,* 11:539 (1885).
William Noyes.—Paranoia. A Study of the Evolution of Systematized Delusions of Grandeur, *Am. Jour. of Psychology,* 1:460-78; 2:349-475.
G. W. T. Patrick.—Fragments of the Work of Heraclitus of Ephesus on Nature, tr. from the Gr. text of Bywater, Balt., Murray, 1889.

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Further Study of Heraclitus, *Am. Jour. of Psychology*, 1:557-690.

E. C. Sanford.—Personal Equation, *Am. Jour. of Psychology*, 2:3–38; 271–298; 403–420.

Relative Legibility of the Small Letters, *Am. Jour. of Psychology*, 1:402-435.

L. T. Stevens.—On the Time Sense, *Mind*, 11:393 (1885) (Ph.D. Thesis).

M. I. Swift.—On the Ethics of Idealism as Represented by Aristotle and Hegel (Ph.D. Thesis).

CHAPTER VII

CLARK UNIVERSITY

My first knowledge of Clark University—The personality of the founder, Jonas Gilman Clark—The call and my acceptance—Closing up at the Hopkins—Pedagogic trip to Europe: the Universities of Holland, Belgium, Scandinavian countries, Russia, Austria, Italy, Germany, France, and England—Interviews with distinguished professors: Helmholtz, Lord Kelvin, Jowett, Pasteur, German Kultus minister, Pobedonostsev, Bilroth, Klein, Von Holst—École Libre—Musée Guimet—First disappointment—The embarrassment from too great expectations—The Clark trustees, Judge Devens, Senator Hoar, Stephen Salisbury, John D. Washburn, Thomas H. Gage, Frank Goulding—The personnel of our original faculty: Story, Michael, Michelson, Whitman, Neff, Sanford, Burnham, L. N. Wilson and others—Financial strictures—Mr. Clark's reticence and withdrawal—Growing discontent of the faculty and resignation of many members—The advent of President Harper—Unique difficulties of my position—The seven lean years—*The Pedagogical Seminary*—The summer school—Child Study—Celebration of the tenth anniversary with European *savants*—Mr. Clark's death in 1900—His will and the litigation that followed it—The establishment of the college—Its first President, Carroll D. Wright—His death and the election of Dr. E. C. Sanford—Attempts to affiliate with other institutions—*The Journal of Religious Psychology*—The library and its problems—*Licentia Docendi*—Theses—My Monday evening seminary—Celebration of the close of the second decennium—My university policies—Graduate work and research—Fellowships—The war—Boards of Trustees—Retirement.

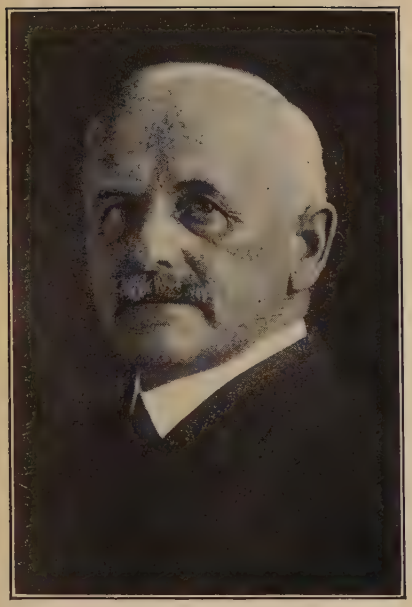
Early in the spring of 1888 I was surprised to receive a letter from Senator George F. Hoar requesting me to call upon him at his committee room in the Capitol at Washington or set a time when he might call on me. I lost no time in presenting myself to him,

and he told me then the story, of which I had of course learned something from the press, concerning a new university already projected in Worcester, Massachusetts, asking me if I was free to consider an invitation to be its president in case it should come to me. I replied that I would do so with an open mind although I was already well established in Baltimore, having served my term of five years and been reappointed, my tenure to continue "during the pleasure of the Board." This meant permanence during good behavior and efficiency and I had purchased a house. Shortly after this, on coming home one afternoon I found Senator Hoar, John D. Washburn of Worcester, later American ambassador to Switzerland, secretary of the new foundation; and Jonas Gilman Clark, the founder himself, conversing with my wife and children. Here the plans and prospects of the new institution were unfolded at length, and I was invited to be the guest of Mr. Clark for a few days in Worcester and attend a meeting of the Board at his house, and in due time I received and accepted a formal call.

My departure, I think, was somewhat of a disappointment to the authorities of Baltimore, for they offered me an increase to their maximum salary and certain other inducements to remain. The Hopkins had already invested considerable money in my department, and had I anticipated that my chair would be left vacant for years and the apparatus of my laboratory distributed among other departments, so that my successor, James Mark Baldwin, would have some special difficulties in reinstalling it years later, I should certainly have hesitated even more than I did about leaving. Of this, however, I at the time had no intimation, and I always felt that the authorities treated me very handsomely in the special inducements held out for me to stay, despite the fact that

financial stringency was already just beginning to loom up in the future.

Mr. Clark, born February 1, 1815, in the little town of Hubbardston, near Worcester, was the third of seven sons and represented the fine old first growth of the American stock. His schooling had been limited to the opportunities afforded in a small rural community, and his experience later had given him a very high appreciation of the importance of education for success in life. In early years he left the farm, was first apprenticed to and then became proprietor of an establishment for making wagons, in which he was successful. He then went to California as a "forty-niner," where he engaged not in mining but in selling mining tools and implements, which then had to be shipped around the Cape of Good Hope. In this business he was also very successful. Here he formed the acquaintance of Leland Stanford, whom he highly respected, and was an active member of the famous Vigilantes that purged the state of the lawlessness which attended the early rush of adventurers there in quest of gold. In his genial hours in conversation with friends he sometimes revealed some of the drastic methods by which law and order were established and the fear of God put into the hearts of the thugs and robbers that infested the region of San Francisco Bay, although the full history of this movement has never yet been written. He also was very active in all the proceedings by which California was kept in the Union in the early days of our Civil War. Here he became a very prominent and influential citizen and established himself in a fine residence on Nob Hill. He later moved to New York and still further increased his fortune by dealing in real estate, and purchased a house on Fifth Avenue near Forty-second Street. As he advanced in years he retired from business and returned to Worcester county, erecting



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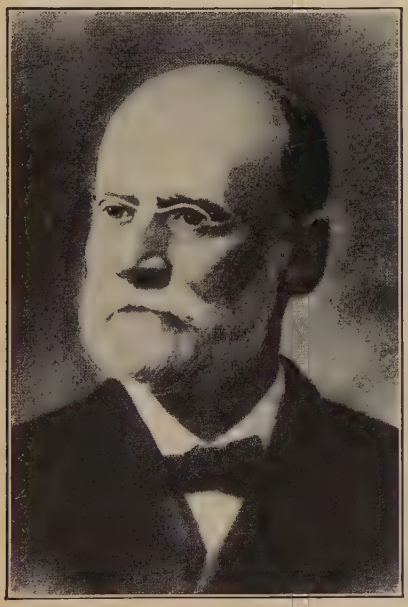

William T. Harris

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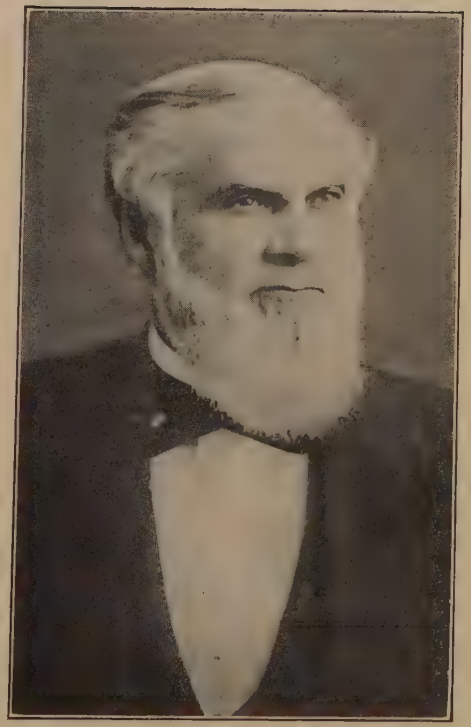
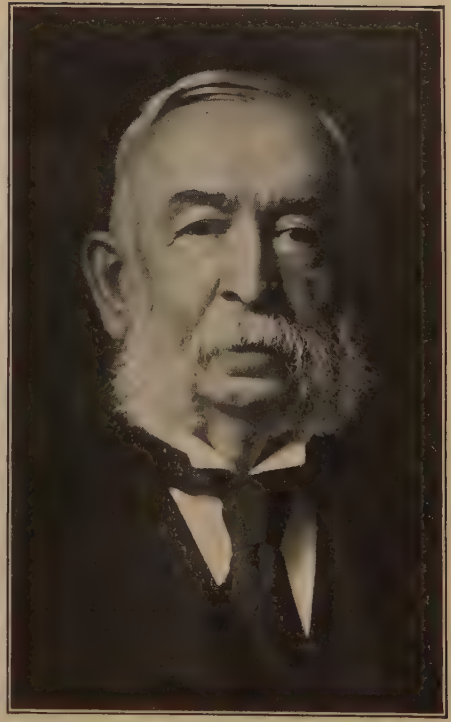


JONAS GILMAN CLARK

SENATOR GEO. FRISBIE HOAR



PRES. DANIEL COIT GILMAN

an elegant granite home for himself on Elm Street, which he ultimately bequeathed to the University. He had already built two large business blocks in Worcester and a library in his native town, Hubbardston, and had planned, with the aid of a local architect, Delano, the main building of Clark University, constructed of brick and limestone and with the same general features as his other buildings. He spent the entire day overseeing the construction of this building, selecting with great care and discretion all the material, especially the interior woodwork, and made everything so solid and substantial that it ought to be in good condition at the end of its second century.

He was a man of great reticence, and having never had a partner in business found it very difficult to communicate his plans even to the Board of Trustees whom he had himself selected. In vain they strove to learn something of the extent of the resources he intended to put into the institution. He was only able to give them somewhat indefinite answers, and in the latter part of his life this trait grew upon him and he seemed to have lost confidence in his Board, ceased to attend its meetings, and communicated with the members only by infrequent and somewhat formal letters. He was, however, profoundly impressed with two ideas; first, the necessity of giving young men an education that would fit them for "good citizenship and their work in life" and, second, the establishment of a university which, like the Johns Hopkins, should add to the sum of human knowledge. This, too, he was bent upon doing in Worcester for his native county, and strongly resisted the earnest efforts of several other neighboring institutions to convince him that his fortune would do more good with them than as a separate foundation. Three near-by institutions in particular had made very strong appeals of this

kind to him, representing the danger of waste by duplication and the enormous cost of a new installation. But to all this he turned a deaf ear. His own childlessness and the example of Leland Stanford always seemed to me to have great weight with him.

The formal call to me contained the following most liberal sentiment:

"They desire to impose on you no trammels; they have no friends for whom they wish to provide at the expense of the interests of the institution; no pet theories to press upon you in derogation of your judgment; no sectarian tests to apply; no guarantees to require save such as are implied by your acceptance of this trust. Their single desire is to fit men for the highest duties of life, and to the end that this institution, in whatever branches of sound learning it may find itself engaged, may be a leader and a light."

My letter of acceptance was as follows:

Baltimore, Md., May 1, 1888

Hon. John D. Washburn
My dear Sir:

The invitation conveyed to me by your official letter of April 3 to become the President of Clark University finds me absorbed in a department of academic work which is new and full of promise, and attached by strong official and personal ties to an institution where the stimulus to research is strong and the enthusiasm for science is great, where much has already been done and the hope of future achievement is high.

Such a field, the work of organizing another college of the old New England type, or even the attempt to duplicate those that are best among established institutions old or new, would not induce me to leave.

But as I have come to know the rare educational wisdom as well as the rare munificence of your Founder, the single and express desire of the corporation that in whatever branches of sound learning it may engage the new Uni-

versity may be a leader and a light, the many advantages of location afforded by your city which seem to make the place of this great foundation no less auspicious than is the time; the public coöperation, interest, and goodwill of your citizens; and as I realize how inevitably these influences, once fairly organized, must lead in this day to still further university progress along old lines and to the opening of new ones, I am drawn with hope and enthusiasm too strong to resist from this present to the future service to which you call me.

Believing that because so much has so lately been done in the advancement and diffusion of knowledge among men still further progress is made possible, and animated by the hope that we may together have the wisdom and the strength to take the next step in academic development, I accept the great charge you confide to my hands.

I trust the Board you represent will never forget that I shall need their constant counsel and active coöperation, and I bespeak in advance the indulgence and sympathy that a plain man under such responsibilities and in the presence of such a task is certain to need.

I remain,

Respectfully yours,

G. Stanley Hall.

After winding up my affairs in Baltimore, teaching and conducting examinations to the end of the term, with a single week's absence kindly granted me by President Gilman, I made educational tours among colleges and universities of the east and middle west, seeing many men and gathering much advice, giving an evening address at the American Association of Arts and Sciences at Cleveland, and occasionally spending a few days at Worcester with Mr. Clark, who was intensely interested in everything I could report concerning men and institutions. I made no final engagements for the staff save in one or two important instances, notably that of Dr. Sanford, who was to edit my *Journal* for a year. It had been Mr.

Clark's intention, and it had so been publicly announced, that the institution should open in the fall of 1888, but he very readily yielded to my suggestion that we defer the opening a year that I might go abroad and study foreign institutions. I left in August and returned shortly before the following May.

When I left, the situation and prospects for the new institution seemed to me and to the Trustees brilliant and unprecedented. Mr. Clark's own gifts, although only in notes and the building and grounds, totaled something like one million dollars, which was then the largest single gift ever made to education in New England. Although no one knew the extent of his fortune it was variously estimated all the way from eight to eighteen and even twenty million dollars. There were always very vague rumors of large interests outside of Worcester, especially with the Barings and in California and New York, and it was realized that if these larger estimates were correct we should ultimately have the richest foundation in the country. Therefore the Trustees advised me to gather what information I could upon all forms of higher academic and even professional education because, they said, "it is better to be prepared for all eventualities that we may do later all that the funds at our ultimate disposal shall make seem legitimate." Mr. Clark, too, charged me to examine all the law, medical, and technical schools I could, although focusing on "all departments of university work proper." I had already conferred with many of the most eminent men of science in this country—the younger Agassiz, both the Gibbs, Newcomb, President A. D. White; the astronomer, Gould, and E. D. Cope, to name only those who had taken most active interest and written me most fully on plans and needs, as well as scores of others. Senator G. F. Hoar gave me a letter to American ambassadors, and Secretary

of State Bayard gave me another to all ministers of education, government and diplomatic and consular agents, with the seal of the United States upon it.

Thus, and in view of my previous years and acquaintance abroad, I was equipped as no one else had ever been for a pedagogic tour entirely, so far as I know, without precedent in the history of education. As a result of much advice I had formulated the following plan. First of all, I would interview leading men in science in regard to their ideals in their own departments and secure, if possible, any general statements regarding the higher educational and cultural needs of science and learning. Second, I would see all the institutions, laboratories, etc., I could and collect photographs and plans of the main buildings wherever possible. Third, I would ascertain all I could concerning administrative methods as seen from the inside and gather confidential *états,* statutes, and ordinances, charters, and histories of the more important institutions. Fourth, I would cover all the ground possible in as many countries as possible, travel nights when I could to save time, and more or less incidentally visit bookstores everywhere and collect and send home interesting pamphlets and other printed material of a more transient nature and more difficult to secure through the book trade. This plan I rigidly adhered to, taking rather voluminous notes (which came to fill eight quite sizable pocket memoranda) and also writing Mr. Clark frequently any data that I thought might interest him, and sending him such material as I could pick up. I was also to visit instrument makers at the various institutions and collect apparatus for my own department.

I landed at Amsterdam, visited every institution of higher education in Holland save the small University of Gröningen, spending the most time at Leyden, where I had letters to the venerable Professor Kunen

of Old Testament fame and the younger Thiele, the latter of whom especially seemed to me to command a remarkable acquaintance with the organization and working of all Dutch institutions. I then visited Belgium, being particularly interested in the ancient Louvain and in the University of Brussels, making detours to Liège and Aix-la-Chapelle to see the technical and educational institution of the latter with its unique points of interest. I then passed to Rostock, which was then unique among German universities in not having surrendered its independence to the government in return for the copious subsidies Germany was then lavishing upon her institutions from the French indemnity fund. It preferred to be independent and its income was chiefly derived from the very large estates under the control of the university Syndicus, who administered them, collected rents, etc. I spent a day or two with him in the visitation of the peasants and wealthier landowners, observing the detailed knowledge and minute directions he gave all these tenants of the university about crops, animals, etc. Kiel had been greatly enlarged as if to rival the Danish University of Copenhagen, at which latter I met Höfding. Passing to Sweden, I attended the interesting annual reunion of the newer University of Lund with its Danish associate, from which I think more than one hundred attended, where I was induced to take a modest part in the speaking at a banquet presided over by my host, Baron Von Schwerin, who was very lavish in his hospitalities.

At Stockholm I was entertained by the famous neurologist, Retzius, whose wife was the daughter of the well-known novelist, Fredericka Bremer, and both were my guests later in Worcester. He was a wealthy man and largely responsible for the new scientific development of the university there. One day a journalist friend I made there introduced me to Ibsen,

a very impressive, stocky, gray-haired man sitting on the porch of the hotel, with whom and Björnson I had a brief but not memorable conversation. I only remember that Ibsen spoke in high terms of the great possibilities of the world which ought to be, but which he feared might not be, realized in America, a country he had often longed but never expected to see.

From here I passed to Upsala, the most northern university in the world, I believe, except that of Tomsk in Siberia, the plans and a lengthy account of which latter were given to me. Here I was the guest of the noted physiologist, Holmgren, who had already done most of his notable work on color blindness. I was greatly impressed with the site of the institution and its imposing new aula. Thence by sea I visited the university of Helsingfors in Finland, where I spent a day or two as the guest of Professor Palmén, the naturalist, who had already published his remarkable memoir on the migration tracts of birds in Europe and, to some extent, in Asia.

Up to this point I had been entirely alone, but at St. Petersburg I met by chance my old Baltimore associate, Dr. E. M. Hartwell. We spent several days together, although his mission was almost entirely confined to public and school hygiene. I found that to see institutions here I must obtain the permit of our minister and we had here only a *chargé d'affaires* who was unable to help me. Accordingly I presented myself with my general letter from Secretary of State Bayard at the University and was given an official escort, who showed me about the buildings, answered questions, and gave me the rather secret new constitution of Russian universities under the law of 1884. But I was not satisfied with this officially conducted tour. Almost by chance I met Professor Setchenov, the noted physiologist, who passed me on to the later very distinguished Paul Vinogradov, the historian

and economist, who spoke not only German and French but English. He was deeply interested in political problems and was already looked upon somewhat askance by the authorities. He was most cordial and confidential and entertained me repeatedly at his house, having, as I thought, rather a penchant for Americans. By the aid of his influence I was able to visit several of the secret political clubs—one of them, as I remember, met in a poorly furnished back cellar (with documents kept in a secret vault) which it required a pass word to enter. The proceedings, however, instead of being very revolutionary, as I expected, seemed, at least according to my interpreter, to be very tame and even commonplace.

One of the most pathetic scenes I have ever witnessed was in attending the closing session of a very large popular school for the higher education of girls of the upper classes. It had already been in operation for many years and there was a very large assembly of former graduates and friends. The government had felt that its teachings were too liberal and that it had become an organ of dangerous tendencies, and had decreed its final close. I could not follow all the proceedings but I was told enough of them to realize the intense pathos of the occasion. Almost every one was in tears. I was particularly impressed by the remarkably fine physique and self-control of these young women, despite the fact that their fondest aspirations so long cherished were dashed to the ground by this arbitrary act of a despotic government.[1]

I had long been curious to see something of the higher military education in Europe and, as my credentials seemed so effective here, I applied to the higher authorities of the government. I heard

[1] I understand that this institution has been reopened, but on a new basis, by the Bolsheviki.

nothing from my request for several days until one morning early, before I was up, on answering a rap at my hotel door, three uniformed officers entered my room. One stood like a statue at the door, another sat down at my table and nonchalantly looked over letters and memoranda that I had left there, while the third, coming to my end of the long room, as if to divert attention from his comrade at the table, asked me many questions as to the object of my visit to Russia and especially why I wished to see the military schools. He was very courteous and we chatted on various topics, as he spoke excellent English. My examination was evidently satisfactory to the authorities for a week later I was notified to be ready at a certain early hour, and with Dr. Hartwell, who had been subjected to a similar inquiry, I was taken in an elegant equipage drawn by six plumed horses, with two liveried outriders and two generals in full uniform. We drove at great speed through the streets, every squad of soldiers we met and all policemen standing at salute as we dashed by, and were taken to a cavalry school a short distance outside the city, where a special all-day programme had been arranged for us. We visited the rooms and classes, met the various instructors, were taken through the stables, and saw a wonderful performance in a large arena by Cossack riders who stood up or picked handkerchiefs from the ground while riding horses at top speed and performed various evolutions. We were shown through the officers' rooms, entertained at dinner, and found the officers and their wives extremely accomplished, well informed, and altogether delightful. Only when the shades of night fell were we returned in state to our hotel. A few days later we were invited to inspect the higher or graduate military school in the city itself. Here, too, we met several distinguished generals, who took us through

each classroom, explaining to us in excellent French each course of study, and gave us, as the cavalry school authorities had done, a number of souvenir pamphlets, programs, etc.; so that we left with a very high opinion of the advanced training of officers of the line.

To my surprise and delight I was at last given an interview with Pobedonostsev himself. He was the power behind the throne of the Czar and at the very height of his influence, ultraconservative, extremely militaristic, full of the conceptions of the greatness of Russia and of her future supremacy in Europe. Although an enthusiastic student of Emerson, he spoke in severe terms of the radicalism that was slowly pervading the universities and justified the severe measures he had taken to suppress revolutionary clubs, to unseat certain obnoxious professors, and on more than one occasion to close temporarily the universities. He advised me to see two or three of the chief dignitaries of the church, giving me his card to them. These gentlemen I found living in state but in what seemed to me surprising isolation. They explained to me how religion was the soul not only of the muzhik but of Russia itself and how essential it was as a conservator of law and order. Here, for the first time, I indulged for a few days in sight-seeing, and then passed to Moscow on a railroad so straight that it was said that Czar Nicholas had laid it out on the map with a ruler. Here, of course, there was more sight-seeing as well as a visit to the university, into the details of which I will not enter here.

I was very anxious to see a primitive Russian village, and with a friend I had found at the hotel hired one of the unique Russian vehicles to take us many *versts* into the country to a group of peasant houses, where we got a good glimpse of primitive life. The family and the cattle generally lived on the main

floor, the pigs below, with the hay and fodder above. We also saw a meeting of the *mir,* where the people gathered in the market place and without formal organization but with very moderate talk and gesticulation chose the local officers and transacted the other business of the hamlet, for here in this land of czarism local democracy was almost complete and ideal.

We passed thence to Prague with its two faculties —Czech and German—where very much of the recent outbreak, which seems to have been animated by racial hostilities as intense as those of the feuds in the Alleghenies, has taken place. Thence we went to Vienna. Here, although the Kultus minister was absent, I was given free access to everything I wished to see and spent some weeks in inspecting the vast museums and academic institutions which adorn the "Ring." As elsewhere in Europe, the government here, since the Franco-Prussian War, had awakened to the importance of giving all its university departments a splendid architectural installation, and the new university building, at a cost of some four million dollars in our money and of a magnificence that dwarfed all about, had lately been completed. My old friend, Professor Bilroth, the surgeon, told me that medicine soon expected a building for itself no less magnificent. Here I found most of the professors whom I had known years before as a student there, and I gave some attention to the studies within my own sphere of interest. The hospital organization at Vienna was at that time by far the best in Europe, for provision for the treatment of all diseases from the entire city was focused at one point so that the clinics made this city the mecca of young physicians from Europe and America. The docent system also seemed here to have come to its most perfect flower for almost every young doctor who had a specialty in which he had done anything of note was allowed to give a brief

course in his own line, with all the facilities of the institution at his command, although these brief courses were more attractive to the many foreign students than were those of "ordinary" or full professors. Vienna was one of the great centers of art, and it was customary then to speak of it in Viennese as *"klee Pari"* (small Paris).

In Berlin I found many old acquaintances. Everything I wished to see, save only the higher military school, at the doors of which I knocked in vain, was freely accessible. My former teacher, Helmholtz, was greatly interested in the new Clark project and even gave me memoranda of what he believed to be next steps in the development of the department of physics. He had himself, however, just yielded to the overwhelming current which was everywhere setting from culture to *Kultur,* and accepted the head of the new *Reichs-Anstalt* at Charlottenburg, where a splendid corps of experts devoted themselves to research in the service of industry and the practical arts. The then Kultus minister, Von Gössler, was kind enough to invite me on an official tour of inspection to Göttingen and Halle. We had a special train and were gone several days. At each institution he was received with great formality by the Rector Magnificus in his official robes, and plans for the new buildings, courses, appointments, promotions, etc., were discussed and agreed upon, as was also the transfer of several professors.

Mr. Clark had desired me to see a "very few"—two or three—of the very best German professors and if possible to induce them to come to Clark. When I broached this matter to the minister of education he replied that the government would be somewhat reluctant to permit its good men to leave and that there were many precedents for refusing this permission, unless, indeed, it be for a short time and for pro-

fessors whose departments were not intimately connected with the industrial development of the country; but that such was the good will of the empire toward America that he would give any definite proposition I might make the most careful and favorable consideration possible. We both understood that under the alien labor law, however, it would be necessary to make no exact and final engagements with any professor until he had actually landed here, and this seemed likely, as indeed it proved later, to be a serious stumbling block. I first of all opened negotiations with Professor Felix Klein, the unexcelled mathematician who had declined an appointment at the Johns Hopkins, which he had visited, but looked favorably upon Clark. The salary was agreed upon and he consented to come for a term of three years, when to his and my surprise difficulties were placed in his way at Berlin which were never overcome, although he did visit us briefly later for a short course of lectures. The Berlin final ruling was that professors might spend one semester in this country for three years without losing standing or their old-age pension, a very important consideration. But this was not what we wanted.

Professor Von Holst of Freiburg, author of *The Constitutional History of the United States* in several volumes, which was the leading authority upon the subject, had visited this country, married an American wife and was a friend of Senator Hoar, who was very anxious to have him brought to Clark. He was the next man I desired to import, as head of the department of history. His government, unlike that of Prussia, made no objection, at least to a three-year term, and he expressed a willingness to come to this country permanently provided satisfactory arrangements could be made for an old-age pension. I saw much of him and his family for some days and we

considered the matter as nearly closed as it could be under the above law, and I wrote Mr. Clark enthusiastically of my success. In his reply, which reached me some weeks later, I had the first of a long series of bitter disappointments that later followed each other in such rapid succession. Mr. Clark wrote in substance that on further deliberation, and after taking advice of others, it had seemed best to wait a year or two, "until we are a little farther along," before importing any foreign professors. As this seemed almost a mandate and was somewhat peremptory in tone, although it was exactly counter to all our understanding and to Mr. Clark's written instructions when I left, there was nothing for me to do but to make another pilgrimage to Freiburg and explain as best I could the entire situation to Von Holst, who was evidently grievously disappointed and angry, as I thought, at me. It was a most painful interview. I immediately sent a copy of Mr. Clark's letter to Senator Hoar and asked him to write Von Holst, explaining and placating as best he could, which he did so effectively that years later, after the Von Holsts had come to Chicago, he told me that he fully understood and sympathized with my position. To make matters worse, I had already begun negotiations with Victor Meyer, the distinguished chemist, whom Bayer of Munich had told me might be induced to visit America for a few years, either despite or perhaps because of the fact that he already had a very large income outside that of his chair from various chemical processes on which he had patents. Fortunately for me, however, the Kultus minister, whom Meyer had informed of my intention, positively forbade him to leave the country, for Germany could not jeopardize her supremacy in the chemical industries which employed so many experts and which led the world.

I visited each of the twenty-one German universities, two of those of Switzerland, and five in Italy. I was particularly interested in those of Turin, under the guidance of my old friend, Professor Mosso; Rome, as the guest of Sergi; and Naples, as the guest of Dohrn; and the great biological station at the latter place, the best of its kind in the world. Happening upon an old American friend, David Jayne Hill, later our ambassador to Berlin, we spent a few days together at the famous medieval monastery on the summit of Monte Casino, and then sailed together from Brindisi for Crete and Athens. We were surprised to find what excellent work was done in several of the departments at the university of this new-old city and were particularly impressed by the splendid new building of the Greek Academy of Parian marble, with its most imposing and elaborate architecture and its finely carved white marble seats cushioned with red velvet. Here I visited the lower and higher schools and heard the little children read and recite Homer, while the boys and girls studied the three great dramatists. We made a brief visit to Smyrna, admiring its beauties and never dreaming of the awful fate which awaited it in 1922. In Constantinople, too, I found something like a university (Dr. Hill had been suddenly called home by illness in his family) and visited the higher Turkish schools there under official guidance, making, of course, a trip to Robert College.

I then passed to Budapest on a slow train which took two nights and a day. There had just been acts of brigandage and English travelers had been seized and held for ransom, so that our train carried a strong military guard, and we saw, I remember, the heads of two bandits stuck up on poles near one station. I inspected, as thoroughly as I was able, the remaining universities of Germany, always adhering to my

plan of seeing first men, then institutions, and third bookshops.

To be still more brief concerning the rest of this tour, at Paris I was most impressed by the *École Libre des Sciences Politiques,* already well established by its founder, Boutmy, where were educated the great majority of the higher French officials although it was privately founded and conducted for many years before the government took it over; by the *Musée Guimet,* established first at Lyons, whose generous founder, when it had outgrown its quarters there, offered to give it to France if the government would properly install it in Paris. This was done in a building admirably adapted for the purpose near the Trocadero. At the time of my visit there were no less than thirteen professors and instructors, and I attended a very formal ceremony, to which I was invited by a scented card, where a Buddhist religious service was performed by native priests in costume, the meaning of which was explained to us on the program. The purpose of this institution and its vast library and museum was to give not merely to missionaries but to all government and business emissaries in various Oriental countries a better understanding of the spirit of the great religions of the East, especially Buddhism, Brahmanism, Confucianism, and Mohammedanism. Many of these courses were taken by the representatives of French business in these lands. Altogether it was by far the most elaborately organized school of comparative religions in the world, quite as unique as the school of Boutmy in its field. Its vast library and collections of religious objects filled several spacious halls.

The *École Normale,* of course, with its splendid history and great achievements; the Sorbonne, and the great Salpêtrière and its wonderful clinics, where I first saw Déjerine and Janet, heard Charcot, and met

Ribot again, occupied several weeks. I visited none of the seventeen provincial universities in France save that of Nancy, but in Paris made a very memorable call on Pasteur, who must have talked with me two hours on the general educational situation in France and took pains to express his very friendly feeling for his co-*savants* in Germany. He expatiated on the idea that the work of organizing a new university in a new country was a task that would fill him, if he were a younger man, with more enthusiasm than anything else in the world. I spent several days in the famous Pedagogical Museum, which filled many rooms and was far larger than those at either Berne or St. Petersburg. It contained not only a very large library but hundreds, and I think thousands, of pedagogical charts, pieces of apparatus, and illustrative devices of all kinds demonstrated in the lectures there and which could be used by teachers in their schools. I was also much impressed by two other institutions, one by Berillon where hypnotism was used on school children and others, the results of which were published in his *Journal;* and the institution of Bertillon, with its enormous collection of finger prints.

I had stayed so long on the continent that my time was getting short and my plans for Great Britain had to be somewhat abridged. I saw and learned what I could of the new university in London, which was then only an examining body; spent a few days each in Cambridge and Oxford, in the former being entertained by the distinguished physiologist, Foster, at his charming residence just outside of the town, and in Oxford by Burdon Sanderson. I was fortunate in having interesting interviews with many others and was given a special "breakfast" by Jowett, the great master of Balliol. I gave only a few days each to the universities of Dublin, Edinburgh, and Glasgow, and at the latter place was entertained by Lord Kelvin and his

wife, whom I had met previously in Baltimore and who was good enough to write out in some detail his conceptions of what an ideal department of physics might be and do. I was greatly impressed by the splendid new edifice of the University of Glasgow.

I came back to Worcester near the end of April with my head full of the loftiest academic ideals and overflowing with enthusiasm as to what a vast fortune devoted to their realization might mean and do for this country, and, despite the disappointment about importing professors, with high hopes that even this obstacle might soon be overcome.

The amazement to me was to find how lavish everybody was of advice, how cherished and often how elaborate were the ideals of university men, many if not most of whom seemed to have imagined instaurations of their own departments rivaling not only Bacon's House of Solomon but sometimes almost suggesting apocryphal vision. From my notes of this trip could be compiled ideals lofty and far-reaching enough to inspire all the universities of the world for a century and to organize a new one here for the development and conduct of which many times ten million dollars would be sadly inadequate. The harvest home-coming with all these sheaves of suggestion and inspiration marked the apex of great expectation, of hope tiptoe on the mountain top. For years and sometimes even now, European *savants* who heard of our projected work only from their conferences with me and assumed that many of the ideals which we discussed together were realized in this golden land of promise, have caused us great embarrassment. I came home perhaps slightly intoxicated with academic ideals, and disappointment was doubtless inevitable without the tragic *via crucis* or descent into Avernus to which we were subjected three years later.

Although I had gone about as quietly as possible and been as modest as I could on such a quest, owing to the magnitude of our hopes it was inevitable that such an errand and my own idealism would have excited, wherever I went, great interest and high hopes for the new institution in the western world, so that among the most painful embarrassments during the lean years that followed were the inquiries from the foreign friends I had met as to how we were getting on and the often uncritical assumption that Clark University, which in fact proved to be a very small institution, was a leader if not the capstone of the entire American educational system. The only distinction we clung to was that we took only graduates and devoted ourselves to research. That was the chief unique feature we could plead. These great expectations of European friends and other acquaintances made during this trip gave us even in advance of our opening a reputation so vastly beyond our achievements or deserts that it was itself for many years one of the most prominent of the many sources of mortification which I was to undergo.[1]

I shall make no attempt here to present the full history of the earlier or later years of Clark University. This has been carefully, fully, and, I think, impartially written under the direction of the Board by Dr. A. E. Tanner, with a collection of documents and records from various individuals including a hundred-page statement of my own, and filed among our archives "lest we forget" and intended, perhaps, for eventual publication.

Despite my disappointment in not being able to

[1] Many notes, reviews, and articles in the early volumes of the *Pedagogical Seminary* are based upon the experiences, data, and first-hand observations made on this trip. If I had had time to write these out in detail and with some systematization while they were fresh in my mind I believe it would have made an interesting and valuable contribution to the subject of higher education at that time.

bring back a few foreign and distinguished professors, the selection of whom I had been instructed to make one of my chief quests, I came home, as I have said, surcharged with academic idealism and with the very highest hopes and expectations, with, of course, no dream of the nadir of disappointment and mortification that awaited me at the end of the first eventful triennium of the institution. It seems fitting, however, at this point to characterize very briefly the gentlemen who constituted the Board of Trustees with which I was henceforth to have such intimate relations.

This Board which Mr. Clark selected could not possibly have been better chosen. After his last visit to Europe, during the third year of the University, he practically withdrew from all connection with it, leaving it in their charge. These men, association with whom resulted in some of the most valued friendships of my life, were the following:

Charles Devens, a native of Worcester but a resident of Boston, stood at or near the head of the bar in Massachusetts and had been attorney-general in the cabinet of President Hayes. He was unmarried, a man of commanding stature and presence and somewhat formal manners, whose life seemed to be pervaded throughout by a high moral purpose. He, first on the Board and more strongly than any one else, realized that the fact that the Trustees had in their hands no assets whatever, save a note of seven hundred thousand dollars from Mr. Clark, and that the expenses during the early years were far in excess of the income of this fund, rendered the Trustees not only morally but financially responsible for the University, and he first developed a strong resentment against Mr. Clark for putting his Board in that position and refusing them his confidence while thus demanding from them the very utmost confidence in

him. At the first meeting of the Board which I attended on my return from Europe he gave expression to these views and asked Mr. Clark somewhat pointedly to make some statement to the Board concerning his plans for the University, and to give them some intimation of how much he intended to do for it. This almost precipitated a crisis, for Mr. Clark was not ready or disposed to make any such statement at that time and felt that the philanthropic foundation he was establishing justified him in delaying his answer. After the meeting Judge Devens and I walked the streets of Worcester till we were tired and then sat long and late in his hotel, he insisting that for one he could no longer remain on the Board and must resign and I urging that he, as a member of the Board that had called me from an attractive position, was bound not to desert but to stand by me and see the trouble through. To this latter view he at length, but very reluctantly, assented, and Mr. Clark never seemed to realize, until after the death of the Judge which soon followed, the depth of his discontent.

Another prominent member of the Board, so active later in mitigating the calamities that befell it that he has often been spoken of as its second founder, was U. S. Senator George F. Hoar. Of a very distinguished family and pedigree, he entered the practice of law and soon became its leading representative in Worcester. Twenty-eight years before he had been elected to the lower house of Congress and soon afterward to the Senate, of which he became one of the most marked and distinguished of all its members, respected by all—as not a few of them to whom he later introduced me said—not only for his very exceptional scholarship in history and the classic languages and literature but as a man of absolute and incorruptible integrity who always strove to look upon political questions from an ethical point of view.

Senator Hoar always kept open his very attractive residence in Worcester and spent practically all his time here when Congress was not in session, and for nearly a decade and a half I became very intimate with him. He was very fond of long drives in Worcester and the adjacent towns and we took together many scores of rides all over the hills in every direction. He was also very fond of inviting a few of us to informal dinners in Boston and various points on the coast and in adjacent towns, and once I entertained him for a few days at my native town of Ashfield, where he met his old college friend, Charles E. Norton, and where with Judge P. E. Aldrich we spent the days in long drives, taking our midday meal at country inns. From the first Senator Hoar was intensely interested in the University and was intent on showing me every kindness. In general he did most of the talking and I was an attentive listener and became deeply interested in all his personal and public affairs. He often read me speeches he was preparing, discussed his colleagues in the Senate, was full of fascinating incidents and reminiscences, and was altogether one of the most genial and charming of men, although, as I had reason to observe (though, happily, never to experience) he could be the most implacable and persistent of enemies. Our intimacy was always the stranger to me because I could very rarely interest him in any of the problems which occupied my mind save those directly pertaining to the welfare of the University. Mr. Clark's reticence and his delay in transferring funds to the Board, and the smallness of those which he did transmit during his life, were a source of increasing irritation to Senator Hoar, and he also not once but often expressed a desire to resign, though I think he was always at bottom resolved to see it through. In the end, after Mr. Clark's death, it was really his efforts in inter-

preting the will, as we shall see later, that saved the University. Many an afternoon and evening we spent in his large, unique, book-lined study on Oak Street with its Greek and Latin mottoes painted on the wall, its many posters, portraits, presents, relics, of which he was such a collector, looking over his very remarkable collection of autographs from all over the world and discussing books. Sometimes he read favorite selections, and Mrs. Hoar was often present. But our main theme was usually the University, and it was his buoyant, sanguine spirit despite all our discouragements that did more than anything else to keep me heartened and that prevented me from accepting the offers to go elsewhere which I had, one from President Harper himself at the time of the great hegira and two others that came later and before Mr. Clark's death in 1900.

Stephen Salisbury, a bachelor in the sixth decennium of his life in the early days of the University, was by inheritance the richest man in Worcester and, with able assistants, gave his entire time to the management of his estate. His father had been one of the founders and benefactors of the Worcester Polytechnic Institute, of which he was also president of the Trustees, so that his family traditions, which were strong with him, inclined him to that institution. He was also the president and liberal supporter of the American Antiquarian Society and the benefactor of nearly all the charities in the city, for very few good causes appealed to him in vain. He felt very deeply the responsibilities of wealth, was old-fashioned in his habits, living in great simplicity in the old mansion his father had erected, genial, warm-hearted, but always modestly distrustful of his own abilities and even of his personality. It became increasingly evident that Mr. Clark had hoped to enlist not only his interest but his active financial coöperation in the de-

velopment of the University. During my early years in Worcester I saw very much of him, and Mr. Clark was always very solicitous to know exactly what we discussed and confidentially presented considerations for me to lay before him. As Mr. Salisbury slowly became conscious of Mr. Clark's large hopes from him he naturally became restless, although he never quite felt that he could withdraw. In fact he alone of all the Trustees maintained more or less cordial outward relations with Mr. Clark to the end of his life, never entirely discouraging Mr. Clark's hopes but doing little for the University except in one case later subscribing twenty-five thousand dollars. It was, therefore, Mr. Salisbury that was chosen by the Board to make the last personal appeal to Mr. Clark, when he was in Europe the third year, to give the Board some intimation of his ultimate intentions, although even this failed to elicit any definite response. In our many talks on University matters Mr. Salisbury never discouraged me as to his own ultimate intentions toward it, and though he never made any promises I was sanguine up to his death, so that we (even though perhaps less than the Polytechnic Institute) were disappointed when at his death, which occurred soon after that of Mr. Clark, he was found to have devised so large a portion of his property to an art museum, a step believed to be largely due to the great influence over him in later years of the Rev. Dr. Merriman and his wife.

Mr. Salisbury was profoundly interested in music and was for years the most generous benefactor of the annual music festival here, one of the proudest and oldest features of Worcester life. He was also deeply interested in all things Spanish, having traveled and explored in Spain and especially in Yucatan, from which he had imported many relics.

The Hon. John D. Washburn, one of the most

genial of men, a lawyer who had also been much in public life, in Congress, and was later our ambassador to Switzerland, and who lived almost across the way from Mr. Clark, was in the early years by far the most intimate with him of all his associates on the Board, of which he was the secretary. He was astute and understood Mr. Clark better than any of us and was always very sanguine and buoyant. As I reread his letters to me during the darker period of the University, his interest continuing even when he was in Switzerland, and especially his extremely diplomatic letters to Mr. Clark during this period, importuning him to state his plans, I realize afresh how much the institution owes to his tact, sagacity, and diplomacy in avoiding a break that so long seemed imminent. He held longer than perhaps any one to the belief that Mr. Clark had very large resources in reserve, and after Mr. Clark had broken with the Board and ceased to attend its meetings or to communicate with any of the members he did maintain some relations with Mr. Washburn up to the time of the latter's death near the middle of our first decennium.

W. W. Rice was another influential member whom Mr. Clark had selected for his original Board. He was a man of wealth, of very judicial temper, with much experience in public life in the city, state, and nation, having served two terms in Congress, and it was hoped that perhaps through the influence of his brother-in-law, Senator Hoar, he might ultimately become a benefactor of the institution. His attitude through all our troubles was, perhaps more than that of any other member of the Board, to try to see the other side of the question, although on all essential matters he finally agreed with his colleagues.

To Dr. Thomas H. Gage, who was elected to fill the place of Dr. Sargent and who became treasurer during the third year when Mr. Clark withdrew from

that office, the University will always owe an immense debt. Mr. Clark had kept almost no accounts save in scraps here and there, often on the back of letters, and it was Dr. Gage who with the efficient help of Louis N. Wilson devised and established a system of accounts, and also relieved me from the responsibility which I had for some time of signing all the checks for every sort of equipment and supply for the University. His sagacity, financial acumen, and conservative but effective administration of our funds brought all the clarity possible under the circumstances to the situation. And I may add here that the masterly brief of his son, Mr. T. Hovey Gage, in interpreting the extremely voluminous and complex will of Mr. Clark with its five codicils, was one of the chief factors in securing the final and just settlement of the more difficult portions of the will in court.

Mr. Clark appointed also his nephew, George E. Swan, a lawyer and his agent, as a member of the Board, and invited me as president, who by the charter could not be a member, to name one. I accordingly designated my older friend and former student, Dr. Edward Cowles, a man of large experience, the creator and long the head of the magnificent hospital for the insane at Waverley, and who, I thought, would perhaps take more interest in the internal and academic affairs of the institution, which he did until he resigned in order to take the place of Lecturer on the staff.

Frank P. Goulding was perhaps, after Senator Hoar's public life in Washington began, the leader of the Worcester County bar—a man of great force of character, of almost coercive power with a jury, blunt, honest, and efficient. He was too much occupied with his professional duties to give the University a great deal of time, although a great help to

the institution in litigations that followed Mr. Clarke's death, and although he was urged to conduct a movement that looked to the breaking of the will and was perhaps somewhat tempted, he very fortunately remained loyal to the institution.

With these gentlemen, all of whom at the present writing have passed away, as well as with their successors, my relations were always most cordial and, with nearly all of them, far more than merely official. Upon them in the first triennium of the existence of the University fell burdens incalculably greater than any that their successors have been called upon to sustain, and to their wisdom the University is largely indebted, not only for what it has done but for its very existence.

Upon my return from Europe near the end of April, I found the large main building of over a hundred rooms approaching completion and another very plain structure of sixty-three rooms finished without and in a very active state of preparation for work. This building Mr. Clark had himself designed as a composite of many plans of such buildings that I had sent him, and he had also laid the foundations for another building quite as large, which was to be devoted to biology but the superstructure of which has never been begun. I was a guest at his house for six months and he spent the entire day at the institution directing the work of the carpenters, plumbers, etc. I had stipulated for a secretary and Mr. Clark had selected Louis N. Wilson, for many years connected with S. Slater & Sons of Webster, for this position. He and I then began the work of active organization in a large room furnished with two chairs and a desk. Mr. Clark's contract with Mr. Wilson had been that he was to work from 7 A.M. to 6 P.M., taking his lunch on the premises, for fifty dollars a month, and he was to give his spare time to helping

Mr. Clark with his accounts, correspondence, etc. Mr. Clark saw no need of elaborate book-keeping, but Mr. Wilson purchased a set of books himself and, with the aid of Mr. Hamilton of the bank, began the establishment of a system of accounting.[2]

It had been, most fortunately, decided to limit the activity of the university at first to five departments, although our interpretation of the scope of these made them exceptionally broad. After much correspondence and many trips for visitation and interview during the summer the following personnel was assembled during the first and second years. At the head of the department of mathematics was W. E. Story, who had been my associate in the faculty at Baltimore and who has made many contributions in his field, aided by Oskar Bolza, a scholar of German training who later had an eminent career, as associate; Henry Taber and J. de Perott as docents, and H. S. White as assistant. At the head of the department of physics was A. A. Michelson, whose epoch-making work on the measurement of light waves had already attracted world-wide attention and who later won the Nobel prize, and under whom A. G. Webster, a young man of remarkable ability and learning just home from four years of European study, was, the second year, appointed docent. F. L. O. Wadsworth was assistant. The department of chemistry was headed by Arthur Michael, one of the most eminent Americans in this field. He and his wife, also a chemist, were wealthy and had given their services to Tufts, where they were allowed exceptional academic freedom. He was ably assisted by J. U. Nef, later head of his department in the University of Chicago; by Morris Loeb, F. W. Muthmann, a man of Ger-

[2] At the earnest request of this modest and devoted man I delete from the last proof what I have said of his great services, not only to the University but to me personally.

man training, and J. W. Williams, who devoted himself entirely to crystallography, as docents; with M. Ikuta and V. Päpcke as assistants and T. S. Clark as honorary fellow.

C. O. Whitman was the head of the biological department. He had been very efficient in the organization of the laboratory at Woods Hole and had already founded his *Journal of Morphology,* but he had never taught and found the requirement of our minimum of two hours weekly somewhat irksome. In this department H. H. Donaldson represented neurology; W. F. Lombard, physiology; F. P. Mall, anatomy, and they were later aided by G. Baur in geology and paleontology. Dr. Baur conducted an expedition to the Galapagos Islands, financed by our trustee, Stephen Salisbury, and brought home a large collection of material which was efficiently utilized in exchange and described in monographs by various experts. J. P. McMurrich was a docent in morphology. Later C. F. Hodge was appointed assistant in biology; J. C. Cardwell in physiology, and S. Watase in morphology.

Although I was full professor of psychology I did no teaching but devoted myself entirely to Mr. Clark and to organization for the first three years, and E. C. Sanford took charge of the laboratory. W. H. Burnham was appointed docent in pedagogy, Arthur MacDonald in ethics, C. A. Strong and later B. C. Burt and A. Cook in philosophy, and Franz Boaz, who has since become our leading American authority in this field, in anthropology. Dr. Walter Channing was made honorary fellow in psychology and A. F. Chamberlain was the first fellow in the department of anthropology.

The above list shows that we had brought together a teaching force in these departments then nowhere equaled in the country. The list of fellows and even

scholars during these first three years contains names of many who have since achieved eminence. All the appointments save my own were limited to a term of years—professors, five; assistant professors, three; while all the others were annual appointees. I had been allowed absolute freedom in the selection of men, and in this matter no suggestion ever came either from Mr. Clark or any member of his board. The heads of departments had seen to it that their laboratories and library shelves were well stocked.

At the opening exercises October 2, 1889, which were attended by an enthusiastic audience of more than fifteen hundred that crowded the large aula, while many could not even gain admittance, there was an interest as deep as it was widespread which I believe no one present will ever forget. In my inaugural, in the preparation of every paragraph of which Mr. Clark showed great interest and approval, I stressed the fact that we should need large and ever increasing sums of money and that the quality of those who studied here would be inversely as their numbers, as, indeed, the sequel proved. As Mr. Clark, with a high and just appreciation of the opportunities here offered, insisted that the tuition fee should be two hundred dollars, which was unprecedentedly high, we had very few *in statu pupillaris* save the thirty scholars and fellows for whom fees had been remitted or stipends provided. The necessity for this latter I also stressed at length and with all the emphasis I could in my inaugural. Mr. Clark in his own address had intimated that other departments were to be established soon, and the institution, limited as was its scope, opened most auspiciously. There were notable addresses by Judge Devens, Senator Hoar, and Dr. E. E. Hale.

The key to the history of all the troubles of the early years may, in a sense, be anticipated from the

following simple figures. During the first year we spent for salaries and equipment, $135,000; the second year, Mr. Clark contributed $50,000 above the income of the $600,000 that had actually been transferred to the board, making a total income in round numbers, of $92,000; the third year, he gave $26,000, making it $68,000; the fourth year, $12,000, making it $54,000; and the fifth and subsequent years of his life he gave nothing, so that the whole institution subsisted upon the income of its funds, namely, the $600,000 for the University and $100,000 for the library. Undoubtedly the University was costing more than he expected, students were fewer, and the income from their fees was practically *nil.* There were vague but I think never substantiated rumors that he had lost heavily in the misfortunes of the British firm, Baring Brothers. At any rate, the chief solicitude of the board and myself was focused upon Mr. Clark's resources and his immediate and subsequent intentions, but upon these topics he gave us no ray of light although repeatedly urged by the board, individually and collectively, to do so. He had sanctioned every engagement and knew exactly the liabilities we were incurring, and the optimistic view was that he could not possibly bring men here or start departments and then fail to sustain them. As he himself had encouraged us to commit ourselves to a budget so far in excess of our regular resources it was constantly hoped that additional permanent gifts from him would be forthcoming, so that when even his annual "donations" began to diminish there was hardly less than consternation in the board. When any question of reëngagement occurred we had to consider carefully whether, in view of all the circumstances, it ought to be made at all, and some of our best appointees were dropped, when their terms expired, for no other cause.

During the first year Mr. Clark himself had an acute personal disagreement with the head of the chemical department regarding the details of its equipment which led him to demand his immediate resignation for no other cause, and I had to ask it and the board to approve it, which we did with the greatest reluctance. He believed in the concentration of authority and had provided by a special by-law that all requests or communications between the faculty, individually or collectively, and the board be through me. He would always listen to instructors who importuned him for supplies, smilingly refer them to me after hearing all they had to say, and then often forbid me to grant their request. In his daily contact with the members of the staff incident to his directing the finishing and equipment of rooms he acquired a very unfavorable impression of the practical common sense of professors generally and began to feel that they were devoting much of their time to devising ways for spending his money.

The leading daily paper of the city, whose representative Mr. Clark had somewhat curtly dismissed from his house, opened a most violent attack upon the University and especially upon the vivisection practiced in the biological laboratory, and several times a week for about six months published bitter and for the most part fictitious accounts of the cruelties perpetrated upon animals—so that I had personally to answer scores of calls by day and by night from those who had lost pet cats and dogs. None from Worcester were ever used and those were always for research and not for demonstration, with anæsthetics when the condition of the experiment made this possible. We remained silent for months but at length invited the S. P. C. A. to investigate us, which it did, and its president, Mr. Angell, published a letter completely justifying all we did; upon which the animosity of the

paper was directed against the society itself. The abuses thus heaped upon us so unjustly doubtless had some effect upon Mr. Clark, who nevertheless insisted that we should not modify our practices. Dr. C. F. Hodge issued an admirable and much quoted pamphlet upon the subject which in the minds of intelligent people did much to set matters right.

In May, as the first academic year was drawing to a close, a tragedy with few parallels befell me. I was quarantined in my own house with a severe attack of diphtheria and, as soon as I was able, was sent to the country to recuperate and for weeks could not articulate but had to communicate by writing on a slate. One night while I was away, by an accident in the gas fixture my wife and younger child of six were smothered to death. This was a blow that for months seemed to me to justify my entire withdrawal from the work at Clark and I spent the summer in California. But by the opening of the second year I was sufficiently restored in health and spirits to take it up again with what resolution I could.

As the second year drew to a close and the trustees fully realized that Mr. Clark would almost certainly not maintain expenditures on the basis on which they had been begun and as there was already much discontent in the faculty, their anxiety focused on the future, and I was instructed to do everything possible not to alienate Mr. Clark to such a degree that he would bestow elsewhere the remainder of his fortune, still believed to be very large. To this end I must, with what grace and tact I could, accept the situation; and when asked, as I often was when I was trying to get his wishes carried through with the faculty as a whole or individually, whether it was my will or the founder's that I was trying to enforce, must give them to understand it was my own and thus shield Mr. Clark. This was most humiliating to my honor and

even to my conscience but the situation demanded nothing less, for the entire future of the institution seemed to hang upon this. Accordingly, I became a kind of Winkelried "gathering a sheaf of Austrian spears" into his own breast. I had been most sanguine about the resources of the institution and had held out hopes that many things would be done at some time which it proved impossible to carry out at the present. The individual members of the faculty grew pessimistic and discouraged and felt at last—only too justly from their point of view—that I had deceived them by great expectations. Thus the third year brought a tragedy unprecedented, so far as I know, in the history of academic life. The trustees and I were convinced that we must face one of two alternatives, either that of dismissing at least half our force or cutting salaries in the same proportion, and we had prepared a schedule accordingly, knowing that we faced a dreadful crisis.

As the year advanced, the inevitable happened. Led by the more discontented, a majority of the faculty, after interviewing every member of the board and stating with the greatest fullness their grounds for dissatisfaction, offered their resignations because they "had lost confidence" in me. A meeting of the board was immediately called, at which I stated that as its members all knew the situation I had nothing further to say and as my personality was concerned I should withdraw from the meeting, which I did.

After long deliberation the trustees passed the following unanimous vote: "That the Trustees of Clark University receive with great regret, through President Hall, a communication from several members of the Faculty, under date of January 21, 1892, in which the gentlemen whose names are appended tender their resignations of the positions they have severally held

as instructors in that institution; and that the Board avails itself of the opportunity to express to those gentlemen its high appreciation of the service each and all of them have rendered the University. That the extreme and concerted character of the action presented in the paper containing the resignations not only gives it precedence over all other matters but if formally acted on by the Trustees would seem to leave them no recourse but to accept the resignations tendered. It is, however, voted That the Trustees refer the communication to which allusion is made to President Hall, in whose impartiality, good judgment, clear understanding of all interests involved and devotion to the interests of the University they have entire confidence, with full power to represent the Board, and to take such action with regard to any or all of the resignations tendered as he may deem advisable."

I had to read this to the faculty but followed it by the statement that I wished all of them to remain if we had the means, though there might have to be a cut-down, that there were elements of the situation which I could not impart to them (referring of course, to the financial situation which had been sedulously kept secret, so far as possible, so as to save Mr. Clark from censure). I said that despite their present bitter feeling toward me I felt confident that when they knew the entire situation they would understand that I had pursued the only possible course and that with my justification their friendship would be renewed, and I exhorted them all to devote themselves to their work, with the assurance that the board would do the utmost possible for them. This, of course, seemed to them lame and ineffective, but it was the best I could say under the circumstances.

Very soon after this, President Harper of the University of Chicago appeared upon the scene. He had made many proposals to eminent men to join his

staff but they had been turned down because of a critical attitude toward a "Standard-Oil institution," a very grave obstacle at that time to that very able and sagacious organizer but which has long since been forgotten in the splendid work the institution has accomplished. Dr. Harper, learning of the dissatisfaction here, had at Professor Whitman's house met and engaged one morning the majority of our staff, his intentions and even his presence being unknown to me. Those to whom we paid $4,000, he gave $7,000; to those we paid $2,000, he offered $4,000, etc., taking even instructors, docents, and fellows. This proved really to be the nucleus and, I think, the turning point in the early critical stage of the development of the Chicago institution.

When this was done he called on me, inviting me also to join the hegira at a salary larger than I was receiving—which of course I refused—and then told me what he had done. I replied that it was an act of wreckage for us comparable to anything that the worst trust had ever attempted against its competitors but he asked, "What could I do?" recounting the above difficulties he had had in gathering a staff. I finally told him that if he would revise his list, releasing a few of our men and taking one or two others whom he had omitted, I would bear the calamity silently and with what grace I could, although I felt his act comparable to that of a housekeeper who would steal in at the back door to engage servants at a higher price. To this he demurred, and I finally threatened, unless he would make such few revisions of his list as I suggested, to make a formal appeal to the public and to Mr. Rockefeller himself to see if this trust magnate (who was at that time about at the height of his unpopularity and censure and who was said to have driven many smaller competing firms out of existence by slow strangling methods of competition) would

justify such an assassination of an institution as had that day been attempted here (for Harper had made advances to nearly all of our staff, even those who remained loyal, and was evidently ready to make a clean sweep). He finally assented, even taking at least one man here who covered the exact field of another he had previously engaged and canceling his engagements with one or two of the younger men I particularly wanted, although to my surprise and regret he felt himself justified in informing those whose status was changed by this revision that it was at my direction.

I had spent much time, travel, and effort in gathering this very distinguished group of men, and I told him that his action was like that of the eagle who robbed the fishhawk of his prey. The accession of these men to the few whom President Harper had at that time enlisted, I have often been told, as indeed was evident, marked an epoch in his endeavors. Their action in enlisting with the new institution by the lake gave the public assurance that it would not be Chautauquaean but would have a solid scientific nucleus, and, moreover, their influence at Chicago would of course be important for advanced work and research, as indeed it so abundantly proved. Three of these men were made heads of the large and admirable buildings and departments devoted respectively to chemistry, physics, and biology. Thus Clark had served as a nursery, for most of our faculty were simply transplanted to a richer financial soil.

All the details of this sad story have been so well written up in Dr. Tanner's unpublished history that I will not dwell upon them here. Despite the tragedy of it all, it was, in a sense, a happy relief from a situation that might have been even worse. With the remnant of the staff that remained loyal, and with a few additional appointments and advancements of younger

men, we closed up the ranks as best we could and settled down in a spirit of exceptional harmony and close fellowship to make the most and best we could of the only income, namely, $24,000 a year, plus that of the library, that we had until Mr. Clark's death, when it would be clear to us whether we must close up, live along feebly, or enter upon the realization of our large and high initial hopes by finding that, after all, he had vast means and had not diverted them to other sources.

It was fundamentally essential to this end that we should be absolutely reticent in regard to all our troubles, and we were so until his death. I think no one outside the Board and myself and two or three others who were in our confidence knew or even suspected the dwindling scale of our income or realized how all-determining was the policy of "shielding Mr. Clark." This policy was desperately hard for me and this the trustees fully realized, and but for their sympathy with me several of them would have withdrawn entirely from the enterprise. It was very hard for me to keep silent under all the censure meted out when I felt that I had ample justification, but it was hardest of all to have to seem to be the sponsor for everything Mr. Clark did, not only in the way of retrenchment but otherwise; and this he himself never realized. It was perilously like the Jesuitical policy of the end justifying the means, for I had to suppress and sometimes negate in many items many of my own most cherished ideals. It was not only that hope deferred makes the heart sick, but I felt myself placed in an utterly false position which I should never submit to again. Nevertheless I take some though only partial satisfaction in the fact that Mr. Clark, however serious his frequent threats were of going elsewhere with what remained of his fortune, never carried them out but in the end almost everything he possessed, including his resi-

dence and even furniture, came to us. This great fear of us all seemed later to have been unshaken.[3]

When the crash came at the end of the third year Mr. Clark was in Europe, where he had at various times spent some six or seven years in all, and although he was doubtless dismayed at the issue he accepted it with, I thought, a great deal of unexpressed compensation and consolation, writing me from Paris that "men may come and men may go" but institutions, like Tennyson's brook, "go on forever." If the initial expenses had made larger drafts upon his resources than he anticipated he was now relieved from these, and he gave us nothing more. During the third year he had entirely withdrawn from the board and never afterward attended its meetings, and felt a strong and growing censure for its members which was entirely unjustified because his course had thrown upon them an exceptionally heavy burden which they took up and maintained with singular fidelity to what they believed to be his highest purpose.

No words can ever begin to describe my own anxiety during the latter months of the third year. Almost every day there were new rumors, some of them wild and senseless, others only too well-founded. I moved my bed and slept with my face against the window opposite the University, to be readily awakened in case of any accidental conflagration, and when it was all over, although we worked from morning to night upon the wreckage of fond anticipations, there was a certain satisfaction that nothing worse had befallen us and that we had really touched bottom.

It is quite clear now in the light of all subsequent events that Mr. Clark, with his high noble purpose,

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[3] As stated in the Introduction, the sequel convinced us all that the danger, by which we were obsessed for years, that Mr. Clark would bequeath the bulk of his fortune elsewhere was entirely baseless and that he never had any serious thought of so doing.

had little conception of the cost of a university as compared with that of a college and that when it began to be apparent he was alarmed and drew back at our scale of expenditure. If he had only given any intimation, even the remotest, to the board or to me as to the extent of the means the institution would ultimately receive, all this trouble would have been averted. Despite all his growing antagonism to me there remains, in my mind, after all these years, only a sense of deep appreciation of his lofty purpose and of great respect for his character, which will always be a precious asset; and my only regret is that he did not select some one of those he chose to help him in the execution of his plan to whom he could confide something with regard to its dimensions.

For the men who left us I do not, and never have felt—unless with the exception of one of the older of them who seemed to me to have acted with a duplicity which nothing could justify—the least resentment. They were honorable, high-minded, very able gentlemen, and if I had been in their place and known the situation only as they did, I should probably myself have acted and felt in a similar way.

Mrs. Clark later summed up the whole situation in the homely phrase, "They thought there was more than there was." Several younger men whom we were now able to invite to occupy the larger places filled by those who had left us, refused to come because of the rumors of collapse that had been insidiously circulated, but despite many dissuasions, Dr. C. F. Hodge, who had left us the year before as an assistant professor, returned and now was the sole representative in the department of biology, which had been the most expensive and elaborately organized of all.

We had promptly been accepted, in the second year, as a member of the New England Association of Colleges and were also one of the twenty-one members

of the Association of American Universities organized in 1900.

In 1891 I had, at my own expense, started the *Pedagogical Seminary,* a quarterly printing six hundred pages a year, in the first volumes of which a very large part of the contributions came from Clark or were from my own pen. Small as we were, we still had what was to us a very heartening realization that we were the only purely graduate institution in the country, and as I look back upon the eight years that followed before Mr. Clark's death I am amazed at our productiveness and the grim determination with which we all settled down to hard work to "make good." One of the first things we did was to start a summer school, with a fee of twenty dollars, which continued for eight years and brought a small revenue and a certain favorable publicity. The sessions were brief, only two weeks, but intensive, with something every hour in the day from eight in the morning to nine in the evening. This was conducted by the instructors in education, psychology, and biology, and we at last were able to enroll some four hundred students and with the aid of a large and representative committee of interested citizens made provision for social entertainments, etc. This brought a slight addition to our revenue and was abandoned only because our instructors, partly by its means, became more widely known and were in demand for summer work elsewhere at far more attractive terms than we could provide. Professor Story established his bi-monthly *Mathematical Review* in 1896, which, however, lasted but a short time.

During these years of "watchful waiting" we were still able to offer thirty fellowships and scholarships as before, but the stipends attached to the former were reduced by one half, so that as students seeking graduate work generally apply at several institutions,

we were their last choice. After much experience in having those we had appointed decline because they had received better paying appointments in other institutions, we afterwards placed our date for appointments latest. But despite this disadvantage the few who came to us on these terms were, on the whole, men of a very superior quality, as their subsequent careers have shown. They were, for the most part, men who appreciated the advantage, greater here than in large institutions, of close, personal, daily contact with the instructors, and we forgot our troubles in doing the most and very best we could for them and realizing that the best thing we had here was our standard. We also made it almost a point of honor never to advertise.

After a few years of continuance under an instructor it was found necessary to abandon the chemical department entirely and close the building. During all these years our strongest or largest department was psychology and education, and although—with I think only three exceptions—we have never received into the institution any who had not graduated from a reputable college, it was necessary to be a little lenient, especially in the educational department, as to technical requirements for admission—more so at least than was feasible in mathematics or the physical sciences.

Senator Hoar had secured a promise of $100,000 from his friend and admirer, Mr. Carnegie, on condition that we would raise a like amount. This we tried to do, but in vain at this most unpsychological moment, and when Mr. Carnegie was told why we succeeded in raising only $37,000 he kindly withdrew his conditions and gave us the above sum outright.

We also simplified our faculty organization, abandoned the Senate and found faculty meetings necessary only rarely. I had always been impressed with

the superfœtation of rules, precedents, and the waste of time in discussing details, and so took upon myself the decision of most matters usually submitted to the faculty, not, however, without conference; and thus we have always had, I think, far less rules, committees, or faculty meetings than any institution, even in proportion to our size. My policy has always been to decide each individual case, as far as possible, on its own merits, unhampered by prescriptions or precedents, and to allow each department almost absolute freedom and independence and avoid the waste of submitting its decisions and wishes to the revision of the larger group of the faculty.

Under all these conditions it was nothing less than amazing to me to see how the little group of young, often very young, men who studied and especially those who taught here grew intellectually as if by leaps and bounds. In our small sphere we certainly had a seminarium which in both its soil and atmosphere stimulated all to grow at a stage in their development when academic practices had so generally been averse to their advancement. This and our standard, the absence of undergraduate work, and the very slight requirements of professors in the way of stated teaching (the minimum requirement being two hours a week), together with the spirit of research, have always been an asset of even high financial value, for not a few have come and stayed here at salaries pitifully small and despite better positions open to them elsewhere.

During the first three years all my time had been absorbed with Mr. Clark and in the work of the development of administration, but now the withdrawal of Mr. Clark, the hegira to Chicago, and the peace and harmony that followed left me free to take up my own work as professor, which I did with enthusiasm, although as I had delegated the experimental labora-

tory work to my colleague, Dr. Sanford, who was developing it so successfully, my chief activity was henceforth in other fields of psychology. But this I shall describe in another chapter. I had acquired a distaste for administrative work and realized that there was now very little for a president to do and that I could earn my salary only as a professor.

During these years, and even up almost to the present, I spent a large part of every summer, and often a week or two of the Christmas vacation, in outside lecturing, occasionally being assigned a tour by an agency but for the most part addressing university and other summer schools. Occasionally I have had eight- or even ten-week stands of twelve lectures each in a place, changing to another institution during the week-end. In this way I find that I have given, in all, over twenty-five hundred lectures and have been in every state of the Union except seven, these mostly the extreme southern ones. This has given me a wide acquaintance with educational men and methods and has been more or less effective as a recruiting service for the student body and helped to make the University known. Included in the above estimate there have been scores of more incidental addresses to women's clubs, churches and associations of ministers, religious bodies, anniversaries, etc., so that I feel that although my work in the University has been more or less technical I have also done my "bit" in the field of university extension. But all this seemed to me more or less necessary under the circumstances.

In the summer of 1899 we decided to mark the tenth anniversary of our opening in a way then more or less unique, and accordingly brought to this country and to Clark University distinguished men from Europe, who gave lectures for a week to which advanced students and teachers of science were invited, and which were printed in a volume of 564 pages.

These men and their departments were as follows: Emile Picard, Professor of Mathematics at the University of Paris; Ludwig Boltzmann, Professor of Theoretical Physics at the University of Vienna; Santiago Ramon y Cajal, Professor of Histology and Rector of the University of Madrid; Angelo Mosso, Professor of Physiology and Rector of the University of Turin; and August Forel, Late Professor of Psychiatry at the University of Zürich and Director of the Burghölzli Asylum. At the close of the course we conferred degrees upon our foreign guests. The expenses for this celebration, which were considerable, were generously met by our trustee, Stephen Salisbury, and other citizens of Worcester.

The year after the migration of so large a portion of our staff to Chicago, and immediately upon his return from Europe, Mr. Clark drew up his final will, dated February, 1893, although none of us had any intimation of its content until after his death in 1900. To this will five codicils were added at various times, the last in 1897. He had often expressed the wish that we start a collegiate department, which I felt justified, in view of the terms of my letter of acceptance, in at first gently opposing. Nothing could disabuse him of the impression that it would be quite possible to add this at any time by delegating an added teaching function to the younger members of our staff and utilizing the Fellows and buildings we already had. But as we then had only five departments and these all scientific, with no work in language, literature, history, or the humanities generally; and as, if we used Fellows and docents as professors, they would—in some cases at least—not be successful as department heads in a college and would also require more pay than they were receiving, and would have little time for research, this was obviously impossible without added funds. I held very many conversations with

Mr. Clark on this subject but we never came to an understanding. I, finally, however, in 1895 submitted a somewhat detailed plan of such an institution embodying our previous conversations, which was exactly what he had, unknown to me, already embodied two years before in his will, including even the item of the three years' course, save that whereas my scheme was drawn up for both sexes his was rigidly limited to men.[2] Thus the plan of the college which he established by his will was based not upon my memorandum but upon our earlier conversations which led up to it, in which we had spoken of the eventualities and possibilities that the will made actual. Since, for the above reasons, I felt the establishment of a college at that time to be impossible, Mr. Clark in the body of his will declared that he had lost confidence in my administration of the institution and made the establishment of the college contingent upon my withdrawal. My attitude had always been that I did not wish a college but that if Mr. Clark saw fit to finance one and insist upon it I would do the best I could to develop it.

When the will was first made public after Mr. Clark's death, by some strange accident in the office of his lawyer the fifth codicil, revoking all his strictures of me and stipulating only that the College should have another head, did not appear, and until this was known some days later it seemed that my withdrawal had been made a condition of all that Mr. Clark had bequeathed to the institution. I felt that I had saved his bequest from going elsewhere, but at the cost of being dismissed as an unworthy steward myself. I shall always remember with mingled pain and satisfaction the visit of Senator Hoar and his wife at my house the evening the will was made

[2] For my original document see Appendix to the Tanner history.

known. Both were moved to tears, and he declared that the trustees would insist upon my remaining and allow everything given by the will to lapse to the heirs —an eventuality which, of course, I could never accept and accordingly drew up and insisted on giving him my resignation. The final codicil withdrawing all his animadversions against me and saying that he had misunderstood me, which was later made public, seemed to make it my duty to remain, despite the financially more advantageous Chicago and two offers of presidencies. The next duty of the trustees was, therefore, to seek another head for the collegiate department, for the will barred me from having anything to do with the College, and the Board was first of all disposed to seek a man friendly and loyal to me.

They hoped to find some one who, like me, would be more professor than president because of the economy thus involved. Accordingly, overtures were first made to E. Harlow Russell, long principal of the Worcester Normal School, to organize the college and he accepted; but later, on maturer thought—and I think wisely on the whole he revoked his acceptance and remained where he was. It was a serious task to find a fit man, but at last Senator Hoar felt that he had almost an inspiration and laid the matter before his long-time friend in Washington, Carroll D. Wright, who had been the successful and efficient head of the Bureau of Labor, keeping it above and outside of politics and independent of other bureaus under three administrations. He was a New Englander by birth and had practiced law in Boston as a young man, had fought through the Civil War, was a man of nation-wide reputation as a statistician, older than I, and already somewhat impaired in health. He accepted the invitation to be president of the collegiate department and also professor of economics in the University, although his activities in this chair were

greatly limited by his health and by outside public duties.

He was not himself a college graduate but was a man of rare common-sense who had a very wide acquaintance with public men, an eminently judicial mind, and although in the very first years of his stay in Worcester he had other important duties outside, he organized the college, manned by a promising group of young men. It opened in the fall of 1900 and up to the present writing has been very successful although, unlike the University, very largely local in its patronage. It had from the first the high ideal of doing four years' work in three, as required by the will, which was a matter of some criticism on the part of the four-year colleges about us and brought some complications with states like New York that require a four-year college course for its high school teachers. The admission of girl students was, however, forever barred. The college prospered and even soon began to yield a substantial increment to the income of its endowment, and a goodly proportion of the graduates are already on the way to success or have actually achieved success and even eminence.

Mr. Wright's national reputation contributed much to make the college widely and favorably known, and in the very delicate relations which conditions beyond our control brought us he was always most considerate and tactful. His wide acquaintance brought several distinguished men here to our public occasions, among them President Roosevelt during his second term. His activity in the state, especially in the comprehensive study of the needs of secondary technical education, and his success in arbitrating coal strikes brought the college favorable notice throughout the country at large.

Words cannot describe the anxiety with which every one had awaited Mr. Clark's will upon his death

in 1900. No one knew the extent of his resources and there was no less anxiety to know whether he had given them all to us or bestowed them otherwise. It was, therefore, with the greatest satisfaction that we learned that the institution at once came into possession of nearly all, and at Mrs. Clark's death would receive, with a few minor gifts to relatives, his entire estate. There was in some quarters great regret that he had established a college department, although this had been more or less anticipated. After a large bequest to our library, which was thereby given an annual income of some $32,000 (which was more than we have ever needed or spent so that it has always been rich compared to the rest of the institution) half the residue was devoted to the establishment of a college, which Mr. Clark declared had always been his intention, and half of the remainder was given to a department variously designated in the will as "arts" and "arts and sciences." If these two oft-repeated phrases were interpreted as the same, all this fourth of his estate could go to the University; if not, the latter would receive nothing and we should have an art department. This issue involved somewhat prolonged and expensive litigation. Senator Hoar was at first strongly of the opinion that the letter and the spirit of the will were against, while I believed they were for, the interests of the University; and he and I had many long arguments upon the subject. One memorable Sunday he proposed that we spend the afternoon, and if necessary the evening, arguing, each for his own interpretation, which we did for hours. He had a strong will to believe with me and at the end of our discussion declared that he was convinced, and argued the case on that basis so successfully in court that this interpretation prevailed and the final decision was in our favor. It was his signal and arduous service here that acquired for him the title

of the second founder of the institution, so that a year or more after Mr. Clark's death we were able to materially enlarge and strengthen our work.

Almost immediately the new library building was devised and erected on the most modern lines by Librarian Wilson, under whose wise and efficient management the library has come to play a somewhat exceptional rôle—as this generous endowment made it possible for it to do—in all our work. A liberal sum was expended in remodeling the grounds, Mrs. Clark contributing twenty-five thousand dollars for a steel fence around the campus. The physics department was moved to a wing of the chemical building, new rooms were finished off and old ones assigned respectively to college and university work, the same departments in the two institutions were coördinated and the waste and friction of divided leadership minimized, and graduate and post-graduate work were made, so far as possible, to stimulate and to help each other.

The anomaly of two more or less independent institutions in the same buildings brought many complications. Several of the most promising college instructors were given a lower place on the staff of the University, from which they received an addition to their college salary, so that several budding new departments were introduced into the University, notably history, economics, and sociology. On the other hand, some of the University Fellows and docents received from the college added remuneration for assistance in collegiate instruction. Before the advent of the College the University had always given its degrees privately and there was some feeling against academic ceremonies and millinery, etc. But Commencement exercises were necessary for the College and in these the University participated, conferring its degrees in public also for the first time.

In the later years of Dr. Wright's administration,

as he was gradually enfeebled and left more and more of his functions to the dean's office, a spirit of rivalry and even antagonism was fostered between the two institutions. The funds devoted to college work could never be diverted from that end while those given to the University could at any time, if the Trustees so decreed, be entirely given over to undergraduate work, and this fostered in the University camp a certain dread lest the College should attain undue preeminence. There was also fear that its three-year graduates would not quite reach University standards for admission to it. The purposes of the College would never admit its being chiefly a feeder to the University, although it has discharged this function in the case of not a few of its graduates who continued in the University. In the latter, some of our professors were opposed to any coördination, insisting that Clark Bachelors fell below their standards.

On the other hand, there were also those in the College who strongly likewise resisted coördination and advocated autonomy, so that at Mr. Wright's death in 1909 this had become a paramount issue and the situation held abundant material for trouble. After considering several score of names for Mr. Wright's position it was at length, after very mature deliberation, decided by the trustees to install a University professor, my colleague, Dr. E. C. Sanford, as head of the College. It was with great reluctance that he decided to abandon his chair and guide the destinies of the collegiate department, which he did for eleven years with great success, resigning when I did only as a point of honor to allow the trustees to at length unite the two institutions under one head, as Mr. Clark's will provided they might do. Dr. Sanford, who had been my pupil in Baltimore and the very first man I had engaged from that institution to come with me to Worcester, and I have always been

close and intimate friends, so that friction was gradually superseded by an entire harmony which laid the foundations for the amalgamation of the two which is being so wisely and ably effected, as I write, under our successor, President Wallace W. Atwood, the Harvard physiographer and successor there of the noted Professor Davis, the latter an able pioneer in this country of a department almost new but greatly needed in our academic life. Under Dr. Atwood the combined institutions, it is to be hoped, are entering upon a new period of prosperity and public favor.

As to the relations between the University and College, we were brethren, children of the same parent; or, to change the figure, a married pair, although unlike them we could never be divorced. Neither must encroach upon the other, and our two-in-one dual unity was unique and involved both new responsibilities and new possibilities. Up to the present, when both are united under one administration, each was a noble stimulus to the other. The period of duality was indispensable for the due development of each, and yet we all always knew that the union of the two, when the psychological moment should come—as it has as I write—would itself bring great advantages.

During the lean years before Mr. Clark's death and since, I made many attempts to affiliate with other local institutions in various ways, but always with very limited success. Negotiations were opened with presidents of the Worcester Polytechnic Institute, Fuller, Mendenhall, and Engler, to avoid duplication. There were always upper-class students there and occasionally instructors who desired to pursue pure science here. These we welcomed, and in a few cases courses were especially adapted to their needs; while those of our students who desired more work in applied science were permitted to avail themselves of the

opportunities at the Institute. Although we then concluded that any kind of amalgamation was out of the question, our relations have always been exceptionally cordial and coöperative.

The College of the Holy Cross, a large Catholic institution here of excellent rank, often had graduates who desired courses offered here, and after considerable deliberation, because the nature of the studies there was so different, it was decided to admit their graduates on the same terms as others. This has brought not only harmony between the two institutions but has attracted to us a number of brilliant and able men, while we have fitted some of their graduates for teaching and other positions, to which we have assisted them.

The Natural History Society with its own building and museum and organization has coöperated with the biological department, which has always striven to be helpful to it, and we have profited in various ways by the interest in these subjects which it has created.

The Worcester Art Museum with its fine marble building and its rich endowment from our former trustee, Mr. Salisbury, is another strong and independent institution in which the University has been deeply interested. Its policy was chiefly to collect choice works of art, but it later attempted to make helpful contact with individuals and other art associations and especially with this department in the schools, under the guidance of its able director. Here, too, there is a possibility of closer coöperation, especially as the University has an art fund of $100,000, the expenditure of the income of which in the spirit of the will has been a source of some embarrassment. Part of it, however, has been spent in portraits by eminent artists of presidents Wright, Sanford, and myself, and Col. A. G. Bullock, long the able and

efficient president of our Board who was elected as a successor of Senator Hoar.

With the well-equipped Worcester Library we have also established the most cordial relations and done whatever seemed possible to supplement rather than duplicate purchases. For a public library it was unusually rich in scientific works under the wise direction for some forty years of its able head, Mr. S. S. Greene, and this has been a material help; while our library is open to the patrons of the Public Library for the more special and technical literature. Here I may add that the New England Association of College and University Librarians was suggested, organized, and held its first meeting at Clark, and in its work we have profited and been able, I think, to contribute our share.

With the large state hospital for the insane we have always maintained the closest relations. In the early days I gave weekly clinics there to my classes in psychology, selecting patients to illustrate the main types of psychopathology. Later, Dr. Adolph Meyer began his eminent American career as resident pathologist there and lectured in the University, and his successors, when there have been such in that position, have been employed also in the work of instruction at the University. Dr. Edward Cowles, our former trustee, gave clinics there for the benefit of our students in psychology for, I think, fourteen years and up to his death in 1920. It is an inestimable advantage for students in this department to profit by the results of nature's cruel experiments upon the insane, many of whom illustrate tendencies found in us all and only "writ large" in their symptoms.

What in later years has become one of the most important problems of coöperation has been that with the American Antiquarian Society here, the oldest, largest, and strongest of its kind in the country, now

installed in an impressive building, with a library of some one hundred and fifty thousand volumes and many original documents, so that these collections are really indispensable to students of earlier American history. The trustees of the University and I long strove to bring about a positive affiliation of these two institutions, even offering the Antiquarian Society a building site near the University. We felt, as our department of history grew, that not only our graduate students could derive great help from familiarity with its alcoves but that it would itself be invigorated and made more productive by closer contact with young specialists in this field who were studying here. Various schemes and devices were at different times talked over to this end, but the Society at length concluded that it must safeguard its perpetual independence and chose a site for the erection of its new building accordingly. Nevertheless, especially by the efforts of Dr. Hulbert, who was for several years on our staff, ably seconded by Professor Blakeslee and welcomed by the Society, there was established a most wholesome and vital rapport between the Society and our department of history.

On several occasions I have attempted to gather from other cities, and especially American cities, examples of the great gain in effectiveness and economy of effort and means brought about by coördination of institutions devoted to the advancement of learning, but the University has not been large or strong enough as yet to overcome the conservative influences which always tend, perhaps especially in New England, to make independent foundations shrink from any kind of amalgamation, despite the many instances in which such federation has been of great mutual advantage.

The University has always striven to do its full share in all public and civic matters. Not a few of

the instructors of the College and University have accepted city offices and done their best to discharge their duties effectively. A few times some of them entered with zest into political discussions where the occasion seemed to them to justify it, although realizing in general that institutions must hold aloof from these. The Board of Trade was really started in my house, where I invited a score and a half of the more eminent citizens of Worcester to meet and reconsider such a scheme after it had been more than once proposed and even started but abandoned. This time it was successful, and out of it has grown an organization of something like one thousand members, which has long been in great need of larger and better quarters. One former professor at the Institute of Technology, also a student and lecturer here, was lately dubbed "Worcester's most useful citizen" because he has for years devoted so much of his time to comparing our charities, the organization of our government, effectiveness of school board, etc., with those of other American cities of similar size. Although a by-law drawn by Mr. Clark expressly forbids our instructors to engage in any kind of outside work "of a kind or an amount likely to lessen their full efficiency to the University," and although the Institute of Technology furnishes most of the experts for our local industries, not a few of our men have also rendered signal service in solving industrial problems which require expert knowledge. It was a former instructor here, Dr. R. K. Duncan, who later at Pittsburgh made himself known favorably throughout the country by establishing there the most fruitful of all relations between the Mellon Institute and every chemical industry of the city in a way extremely helpful to both parties and thereby setting a fashion that has been widely followed. Dr. Floody was a student at the University when he established here

the Garden City that has been so widely copied, and everywhere proven so efficient.

The University and especially the College have in their history provided not only scores but hundreds of lectures and courses open to the public by men of eminence from outside, and members of our staff have given many single lectures or even courses before local organizations, so that despite our devotion to research no one can accuse us of isolation or of not doing all in our power to advance the culture and material interests of the city in which we are located and which exempts our property from taxation.

With the aid of the University I was able to start *The American Journal of Religious Psychology and Education* in 1904, which with volume V was changed to the *Journal of Religious Psychology* in its anthropological and sociological aspects and thereafter largely edited by Professor A. F. Chamberlain, until his death in 1914, when its publication ceased. This was established with the conviction on my part that so much had lately been done in developing the psychological aspects, not only of Christianity and the great ethnic but also the primitive religions that an organ that did not then exist in the world was needed in which epitomes of the most important books and articles from whatever source could be gathered and which should also be available for the publication of scientific memoirs in this field, combining thus in some slight degree the functions of a *Zeitschrift, Centralblatt,* and *Archiv.* It was hoped, too, that this venture might appeal to those of all denominations interested in Sunday school work. During the years of its existence it did find a list of subscribers who were greatly interested, and abundant material was forthcoming, but the journal never became quite self-supporting; and since Dr. Chamberlain had given it the broadest anthropological scope and no one else could

be found with his incomparable erudition in this field to succeed him, it seemed advisable to suspend it, despite every prospect that had he lived the journal would have grown to a degree to justify all our initial hopes, and more. Its career shed one of the most interesting, if not entirely encouraging, lights upon the attitude of religious thinkers, workers, and preachers toward attempts to provide for their themes a substantial basis and to shed the light of science upon them.

The University has always admitted women graduate students on the same basis as men, although there was always more or less opposition to this even in the board. There were fears at the outset that the number of women might exceed that of men but this soon proved to be utterly groundless because, as compared with the large number of women that are in college work, very few, indeed, desired to specialize or even take post-graduate work in the departments we had established. Thus we have always had a very few women in nearly all our departments and it is a pleasure to state that, on the whole, they have been quite as able, as well-trained, and as productive in scholarship as our men. Not a few of the best memoirs issued here have been done by women or based on their work. They are, as a class, more coöperative and amenable to suggestion and less likely to waste energy by the pursuit of methods and goals which are not entirely approved by heads of departments and which not infrequently issue in failure. Thus, in my opinion it would have been a great mistake had we entirely excluded them, as we have several times been nearly on the point of doing.

Our library is one of our distinctive features, as indeed it should be because of its endowment. The classification of books in each department was wrought out with great assiduity by the head of each.

By judicious purchasing; by coöperation that enables us to bring, by way of loan, books needed from every great library in the eastern part of the country; by the display of new books fresh from the publisher's twice a week on our tables, which each member of the university is free to order; by our open alcove system which allows every student his own place in the library and free access to all the shelves; by the privilege open to each of drawing any number of books for practically any length of time; the very large average of books used by each student per year; the increasing realization by the professors that one of their most important functions is to guide and inspire discreet and very active reading and to save the pupil from the waste of reading second- or tenth-class material—all this, I think, has made the library here a relatively more important part of our work than elsewhere; and if the ideal of the future academic faculty is to direct reading, to give the class the benefit of his own, and to devise ways and means of pooling for the benefit of all what each has read, this ideal may be nearer to its realization here than elsewhere.

One item quite prominent in our early programme and always of great interest to me was represented by our efforts to establish here the docent system. In Germany almost any young Ph.D. two years, more or less, after receiving this degree, if he has done any signal work and has academic aspirations is allowed to give lectures in the university. Here, in theory at least, he is absolutely free. True, he receives no compensation whatever save the fees from the students he may attract, so that he must, for the most part, support himself. The subsequent career of these men thus, again at least in theory, depends entirely upon their own ability and success. Occasionally they have boldly competed with aging or inefficient professors, and by lecturing in their field with perhaps greater

skill have won their students, and thus put them upon their mettle and introduced the wholesome stimulus of competition. At the other extreme are docents who have brought new subjects which they have the ability to develop into courses that the university adopts. Not infrequently, too, they have labored for long years and almost starved themselves, with no recognition whatever. Sometimes they have met with official opposition because of their independence and criticism of current tendencies and opinions. In a few cases they have been allowed not only university rooms but the use of apparatus and clinics, and have been assigned favorable hours. Thus, on the whole, they have constituted a most wholesome influence, and very many a leader in Teutonic institutions has done this and been advanced either rapidly or slowly, in proportion to his merits. The institution has thus been a kind of seminarium for professorates and also a palladium of academic freedom, the docent occasionally teaching doctrines in the sharpest contradiction to those of the heads of departments and maintaining entire independence of them.

It seemed that this institution might be tried out in this country. Accordingly, several such appointments were made and many such positions have been held here, although it was found necessary under American conditions to attach a small salary to them. They were our highest annual appointees. We stipulated that they should be "not assistants and their relations be directly with the president of the University." While they were to give a certain limited number of lectures their work was to be mainly research. This *licentia docendi* we hoped might be regarded by other institutions seeking occupants to chairs as a kind of brevet professorship, and we stated that "good men of this class are desired by the University above all others." They were not members of the

faculty and were therefore not supposed to interest themselves in academic politics but to illustrate in the most eminent degree the liberty of both investigation and teaching.[3]

Theses. Most of the scores of guilds which were so prominent a feature of not only the industrial but the social organization in the Middle Ages required of each novice that at the close of his apprenticeship he present a masterpiece which would show to others and to himself the degree of proficiency he had attained in his trade or art. And in all the medieval universities a student on taking his degree had to propound and expose some thesis at length and append a number of others which he was ready to defend in public against all comers. Only having done this could he become Master or Doctor. Most American institutions require a thesis as an integral part of the preparation for their higher degrees, although there is a vast difference in the relative importance attached to this work at different institutions. Some insist that it shall contain something deemed by the authorities to be a real addition, however small, to the sum of human knowledge. Some require its publication, so that it marks the appearance of the novice before the larger public.

In Germany it is no less diverse in different departments and institutions. A few of these theses have been even epoch-making, not merely for the propounder himself but in the history of thought, or have blazed the trail or at least pointed the direction which the subsequent life work of the author was to take. On the other hand, many German professors assumed that the candidate in their department was little more than their own famulus and the thesis was assigned to help along their own work. Some years ago a

[3] See above the names of these appointees.

German publishing house advertised 63,000 of these printed theses for sale, and I have selected and looked over perhaps several hundred of them at various times. Very many are devoted to points so detailed and special that their preparation could have had little more significance for their own department than if they had been hired assistants of the professor. Any new idea or discovery thus made was almost always assumed to be the property of the professor. It was against this custom that in a case brought to court there by a brilliant American student a somewhat epoch-making decision was handed down, that the results of such work, if clearly the product of the student's mind, were his own intellectual property.

In France there was hardly less diversity of opinion and practice, and the same is true, as I write, in this country. In various discussions in private and in the Association of American Universities it has appeared that some institutions lay vastly greater stress upon the thesis than others, and the opinion has even been expressed that the average graduate student is incapable of producing anything worthy of publication and to think otherwise was to inflate his mind with a dangerous and arrestive conceit; while others have urged that without publication of theses the assumption that the student's mind had reached the stage of independent action could have no validity beyond the actual conferring of the degree upon him by the faculty. Thus there is perhaps almost nothing in the whole field of graduate work here in which departments, individual professors, and institutions differ more than in their conception of what a thesis should really be.

In stating my own ideas and practices on this subject I realize that they would not apply to other departments in the same way or degree, and perhaps not even to my own in other institutions. As a result

of my experience of nearly forty years the following general plan has been evolved. First of all I lay very great stress upon the thesis and would have even Masters, insisting far more strongly, of course, in the case of Doctors, devote to it a considerable part of the year or two required. To choose it right has come to seem to me almost as important, at least in many cases, as choosing a wife. The instructor must first of all, after considerable personal conference, find out along what lines the native interests or attainments have been most developed. He must also consider with no less care the probable future career of the student and find, if possible, that topic which will best enlist all his powers and be most helpful to him in his career as an academic teacher. Very many a student, during his critical initial year as instructor elsewhere, has been saved from failure because, although his attainments and skill in some of the fields he was required to teach were inadequate, he could, nevertheless, speak with authority and show himself fully up to date in some part of it.

Thus there must surely be considerable preliminary study of each student and an inventory of all that he has done, together with an estimate of his capabilities. In this individual students and those coming from certain institutions are vastly behind others. Some, having served a long apprenticeship devoted to mere acquisition, have become so abjectly and habitually subject to authorities that they are at first shocked at the idea that they themselves must now become authorities upon something. Some very able men deem this impossible because they have no confidence in their own abilities. With some students the choice of a subject is easy and obvious for they have already developed definite inclinations which the professor can approve. With others, weeks and even months of personal conference fail to discover any-

thing in which the individual can begin with any initial advantage of position. I always endeavor to have a number of topics which seem to me fruitful but I hesitate to impose these without some inner personal inclination lest, at the close of the year, the harvest be nothing but leaves and the student, as sometimes happens in such cases, turn upon me with the accusation, which I fear is only too just, that I have given him the wrong subject.

The prime consideration should be the real advantage to the student himself, and a very close second to this (and I would always place it second) should be the prospect of adding something to the sum of human knowledge. If the theme is not chosen with due reference to this latter object, or if I have assigned a problem which is found later not to admit of a definite solution, I am to some degree responsible for the loss of a golden year or two of academic opportunity which will probably never again come in the student's life. This matter of selecting the right subject for the right individual is something that has filled me with a sense of responsibility that has steadily increased with years. On the other hand, with a topic rightly chosen it is often amazing to see the amount and even the quality of good work accomplished. The student often has not realized before the strength and depth of his own interests or has not found a focus for many of them which had hitherto seemed to him diverse and unconnected, but having found it, he can tap sources of reserve energy and unsuspected insight that enable him to triumph over many difficulties.

Having between us chosen a subject, I always insist that the student must, first of all, put himself abreast of the best that has been everywhere done or said and that he must diligently read and take notes, and I feel it incumbent upon myself to give him a

goodly list of references on which he must, from time to time, report his progress in mastery of them. I have no sympathy with the conception of some instructors that it is best, first of all, for the student to work out his own ideas before encumbering his mind with the knowledge that others have contributed, although this latter, of course, brings some initial sense of difficulty and perhaps discouragement. But here, as everywhere else, everything must be adapted to the individual. I have for many years read and epitomized and have a really vast collection of outlines and abridgments, and by giving these to students I can often facilitate their acquaintance with literature they should know, especially if in foreign languages, of which their knowledge is so often inadequate.

At length the student begins to have views of his own, at first perhaps very timorous and precocious, and these must be discussed until at length we develop a method and begin to collect more specific data (or perhaps, if in laboratory work, devise the apparatus) by which he can focus toward his goal. Thus, almost always in the end he develops positive or negative attitudes toward pioneers in his field and then the work goes on of itself. He becomes more or less independent of his instructor and is enabled to, in turn, instruct him. Thus with a successful thesis a student has often found himself. He has at some point reached the frontier and endeavored to advance it, and his interest in this particular topic never abates. He realizes for the first time that he has actually contributed something, however small, to the world's progress, and thus he has not only attained his mental majority but has become a real citizen in the democracy of learning. This mastery of a subject brings another most wholesome and indispensable result. The young investigator realizes his ignorance in all

other fields and how inadequate his unmatured views and his knowledge of even adjacent fields are, so that he has a wholesome and stimulating sense of ignorance and a proper attitude of docility toward other authorities. One of the most pleasing recollections of my long experience in this work is the statement of so many of my former pupils years afterward that their thesis made them, while the realization that in some cases there has been abortion—owing sometimes I fear, to my own misjudgment—is one of my more painful memories; but although occasionally these mismatings of man and theme have been almost tragic and the only too just source of bitter complaints, I am happy to realize that such cases have been relatively few.

We have not been able, as I think, unfortunately, to print all our theses, as we originally proposed to do. There are scores of these typewritten and bound in our collection which ought to be made public in order thus to submit them to the consensus of the competent and to avoid the academic waste of duplication of work which the publication of Doctors' at least, if not Masters', theses would prevent. Many, even of those finished long years ago, would prove real contributions to the sum of human knowledge, and funds sufficient to publish these is one of our great needs.

The very word "seminary" has had in the past, and has to-day, many meanings quite different. In German institutions it designated originally a group of students who were intending to teach the classics, mainly in the *Gymnasia*. The idea was so fruitful that it soon extended to other departments. I had already participated, as mentioned in Chapter V, in four of these German seminaries. In two of them advanced students read great standard works which were made

the basis of long discussions by the professor. In the physiological seminary of Ludwig each student epitomized the latest articles for the benefit of all. Each student had his own subject or group of subjects to present and here methods and results were compared and criticized. The members of Wundt's group read voraciously and reported for their master's benefit, and incidentally for that of each other.

At Baltimore the seminary was a vigorous feature in every leading department and I, of course, had my own in which alternate weeks were devoted to the field of the history of philosophy and experimental psychology. At Clark, for nearly thirty years, I have met my students at my house every Monday night from seven, often to eleven, occasionally till twelve and even later. In the early days, when the institution was small, we sometimes read, the leader of the evening epitomizing, Kant's *Critique,* Jowett's *Plato,* Schopenhauer, once (but not very successfully) attacking Wallace's Hegel, Darwin, Spencer, and going into the originals with Locke, Descartes, Spinoza, Hume, and others, and also reading Nietzsche and Bergson. But as the seminary grew, nearly all our time was devoted to the reading of generally two papers an evening, each student taking his turn (the sessions separated by a fifteen-minute recess for ventilation and light refreshments) with distinguished men brought in from outside several times a year for our edification.

No one was ever required or urged to attend so that the numbers fluctuated according to the interest in the man or the subject presented—itself a wholesome stimulus. From perhaps a dozen to seventy-five or more would be present, and as outsiders were allowed to come in only by invitation of a member, the gathering was given only a slightly esoteric char-

acter. Each regular member was expected to take his turn, once at least, for half a session during the year, and one of the older members, under my direction, arranged the programme each week for the next. Educational topics were often presented in this way, although psychology had the leading place, and I deemed it advisable to give to the discussions and even to the topics presented the widest possible range. It would be interesting to look over, had it only been preserved, the list of themes actually before us, some seventy a year, but even from these the debates often ranged very widely. After each presentation, which was almost always written and must never exceed an hour, the discussion was open to all, and after perhaps a slight initial embarrassment during the first weeks of each year there was always the most active participation. I stood always ready myself to fill any gap on the programme, and almost everything I have ever presented either here or in lecture has been freely and sometimes even bitterly challenged, so that I have often had to defend my own pet views against very able, as well as indifferent adversaries. Thus this has been a real and great stimulus to me personally. I have often afterward made notes of *apperçus* that came to me in these discussions or of facts and ideas presented by my students, to whom I am much indebted.

The seminary has been a workshop for theses, most of which have been read here, perhaps in sections, and thus the candidates for degrees have been able to draw upon the sources of information possessed by all other members so that it has been a pooling institution. Among these candidates there have been Protestants, Catholics, Jews, Armenians, Chinese, Japanese, Germans, Frenchmen, Englishmen, Negroes, and representatives of nearly every other nationality. There have been ultra-doctrinaires

for anarchism, extreme socialists, Mormons, believers in telepathy, materialists, idealists, and spiritualists. Several times there have been discussions between Negroes and students from the south and there has been every shade of religious opinion from the extreme of devotion to a no less extreme of pantheism, skepticism, and materialism of every kind and degree. Of course these discussions have often become more or less bitter and personal but I have always insisted that every one had a right to his "say" and I believe that this method has, on the whole, tended to moderate ultra and doctrinaire views, while it has had the most liberalizing influence upon conservatives to have their most cherished opinions flouted and to be challenged to stand forth and give a reason for the faith that is in them. The core of all these discussions has, of course, been philosophical and more specifically psychological, but as scores of former members have written or told me that, on the whole, they derived more good from the seminary than from all else, I am convinced that the largest latitude has been abundantly justified. A great many of the discussions were educational, ranging all the way from the care of babies and even prenatal regimen to the work of universities and learned societies, and in this domain, too, I think the method has enriched the mental soil and brought lucidity.

From the obstetric art of Socrates and his pupil, Plato, down to Berkeley and many since, the method of dialogue has always been a very effective quickener and sharpener of mind by mind, and discussion, debate, and dialectic, as the Jesuits knew so well, have always stimulated minds to their greatest activity. A question is a method of challenge that few can resist, even a criminal when subjected to the third degree. Conference makes men compare, clarify, and often modify their views, so that many a thesis put forth

here has been, to some slight extent, the product of joint authorship, and not a few men have found themselves and all have gained new insight into their themes. To subject cherished views to this kind of dialectic, to realize how few beliefs cannot be more or less successfully impugned, to be able to see the other side, and to submit one's own findings to the revision of his compeers gives each a sense of his own comparative knowledge and ability which is an essential part of true self-knowledge.

The seminary also, to each member and perhaps especially to the leader, affords opportunity for fascinating observations of temperament, intellectual character, and disposition, besides, of course, giving better data for sizing up his knowledge of each man's attainments, thinking power, and reading, than any examination could ever do. Very often discussions started here have been carried on actively by the students at their meals and in walks, and have often sent them to the library. The seminary has always been characterized by a spirit of cameraderie and has had much to do in establishing and cementing friendships. No matter how acrimonious the debate it has rarely degenerated into personalities, at which I have always drawn the line, and still more rarely produced lasting enmities. I always felt it essential to evoke something from every member upon every topic in which I thought him informed or interested so that even the most diffident sooner or later learned to find his voice here; while, on the other hand, the forward and too loquacious had to be "called down" by irony or given a conviction of ignorance, but very rarely by reproof, in which I felt it necessary sometimes to be unsparing in the case of careless work or inadequate preparation, occasionally refusing to discuss a topic if too crudely presented or even checking the leader in the midst of his presentation by

telling him in plain terms that the work he was laying before us was unworthy of himself, the subject, or the seminary.

The last seminary of the year has always been given some social features, a committee of students preparing the programme, with many a skit, satire, or mock examination of me or my colleagues by the students themselves in which a kind of Mardi Gras spirit has often run riot. At these last meetings there have also generally been brief formal exercises arranged by the students, with presents and souvenirs of many kinds, of which I now have quite a collection, all of them suggestive of pleasant memories, individual and collective. Man is so gregarious that the quest of knowledge in common in its many forms is one of the most delightful of all human occupations, and after nearly forty years of experience at a weekly seminary, which has brought so many of the intimate relations of friendship between my students and myself, there is nothing that I miss as much on laying down my academic work as this. In fact there seems almost to have been established in my mind a weekly rhythm so that I feel a peculiar lonesomeness Monday evenings. I often think in this connection of Lotze's famous statement to the effect that the only ideal of heaven that would be attractive to him would be just such discussions of the highest themes with the loftiest minds, even if it were only on some "boathouse on the Styx."

We commemorated the close of our second decennium in the summer of 1909 by another series of conferences, to which we were again able to bring a number of the most eminent pioneers in science from Europe and elsewhere besides many from this country, believing that this type of academic celebration and festivity is more dignified and more worthy of a

real American university than processions, banquets, and merely formal public exercises. The first week we brought together representatives of twenty-seven distinct types of child welfare organizations, with fifteen sessions and forty-seven addresses published later in a volume,[4] and at its close a national association of these agencies was effected, which was sadly needed because they had hitherto in general worked with little coöperation and little knowledge of each other. Another week was devoted to scientific conferences in each of our chief departments. The department of mathematics brought W. F. Osgood of Harvard, J. Pierpont of Yale, E. P. Van Vleck of Wisconsin, Percival Lowell, and E. H. Moore of the University of Chicago, who constituted the nucleus of work in this department. In chemistry we imported André Debierne of the University of Paris, while T. W. Richards, J. A. Steiglitz, A. Michael, M. T. Bogert, W. A. Noyes, and A. A. Noyes also gave lectures. In physics we had V. Volterra of the University of Rome, E. Rutherford of Manchester, England, A. A. Michelson, formerly of Clark but now of Chicago (both the latter being Nobel prize men), C. Barus, E. F. Nichols, and R. W. Wood. As in chemistry, these gentlemen lectured to each other and to a fit advanced few for a week, and we published both series of lectures in a volume, as we did also those in mathematics. Biology was represented only by C. O. Whitman and H. C. Bumpus, and history by L. W. Wilfley.

In psychology we were fortunate in inducing Sigmund Freud of Vienna, W. Stern of Breslau, C. G. Jung of Zurich, E. B. Titchener of Cornell, F. Boas of Columbia, Adolph Meyer of the Johns Hopkins (both the latter formerly at Clark), H. S. Jennings of

[4] *Proceedings of the Child Conference for Research and Welfare,* Stechert, 1909. 251 pp.

Hopkins, H. Ferenzi of Prague, Ernest Jones of Toronto, and William James, to be present and speak. The conferences in this department were attended not only by psychologists but by eminent psychiatrists, and the influence of Freudian views in this country, where they had been little known before, from this date developed rapidly, so that in a sense this unique and significant culture movement owed most of its initial momentum in this country to this meeting. Professor Burnham of the department of education brought no less a leader in hygiene than Leo Burgerstein of Vienna.[5] Nearly every day was spent in listening either to formal lectures and demonstrations by these and other eminent experts or in more informal conferences, which were facilitated by provisions by which all could take their meals with those of their own group.

At the close of this commemoration the University departed from its custom of being very chary in the conferring of honorary degrees and bestowed thirty doctorates of no less than nine kinds, according to the preference of the men to whom they were given. This was more than three times as many honorary degrees as we had given in the preceding twenty years, but it was the desire of the faculty to emphasize the policy that even the LL.D. should be bestowed only upon those who had done signal work for the advancement of science and not for general eminence or as a compliment, or in recognition or hope of benefactions.

The close of the third decennium in 1919 was not commemorated because of the confusion brought by the war, but the close of the twenty-fifth year, in 1914, was marked by an effective and permanent organization of the alumni in an academic celebration

[5] See *Lectures and Addresses Delivered Before the Departments of Psychology and Pedagogy in Celebration of the Twentieth Anniversary of the Opening of Clark University,* Worcester, 1909. 180 pp.

limited to one day and evening, at which I attempted to set forth the general university situation in the world and also the Clark ideals.

The University has always favored and subsidized the attendance of its professors at scientific and other meetings, expeditions, etc., and although it has had no sabbatical year it has both encouraged and assisted not a few of its instructors to more or less prolonged terms of study elsewhere, both in this country and abroad. Among others it assisted Professor Blakeslee of the history department to make three prolonged excursions, one to the Near and another to the Far East, and one to Latin America. In addition to the conduct of his *Journal of International Relations* he has organized and held seven conferences at the university, beginning with our second decennial in 1909, on the following topics: China and the Far East; The Near East and Africa; Japan and Japanese-American Relations; Recent Developments in China; Latin America; The Problems and Lessons of the War; and Mexico and the Caribbean. Altogether these conferences have listened to 215 papers by those who could speak with authority. Sixty-three represented the faculties of over 32 universities, 53 have held important government positions, 74 were authors of more or less important books on the subject, and 30 were citizens of the land discussed. These were largely attended and attracted much attention in the press and the proceedings of all have been published in as many volumes.

Dr. Blakeslee conceived the purpose of these meetings in substance as follows: They are to bring about a more intelligent understanding of international relations, to teach all to see the other side of the question, and thus to discharge one duty which a university owes to the public, especially in a democracy. Prejudice of any kind and partisanship of any degree

Group of Psychologists at Clark Conference of 1909.

Brill
Freud
Jones
Hall
Ferenzi
Jung

A Group at the Clark Conference of 1909

have no place in such a forum, which really should be a kind of laboratory for the development of broad international views and sympathies. Although very many delicate questions, even those involving race animosities and particularly those in the two conferences just as we were entering the war and in the final one, were discussed, and very many diametrically opposite views expressed, there has been through them all, with but very rare exceptions, an entire absence of antagonism or bitterness. Dr. Blakeslee desired not only to have upon his programme experts and leading actors in the events described but to have burning present-day problems discussed in the same spirit of candor and fairness with which we now discuss the Napoleonic wars. The expenses of these conferences have always been borne by the University.[6]

I have felt in later years that I did not appreciate at its full worth the work of my colleague for more than twenty years, Prof. C. F. Hodge, who after the hegira to Chicago had the entire biological field here to himself. He had done brilliant experimental work on various topics, perhaps the most important and original being on the effects of fatigue upon the microscopic structure of brain cells. He had the rare felicity of combining with his purely scientific interests a real zest for economic zoölogy and its pedagogy, even with young children, and he was always the idol of his students, feeling that the studies of life should teach man how to live. Besides directing always a few investigators he found time not only to interest school children in nature but to write a most attractive and novel textbook for upper grammar grades which set new fashions, had a wide influence, and inciden-

[6] I may add now, in January, 1923, that Dr. Blakeslee's journal has been merged into *Foreign Affairs*, an American quarterly review, and Williams College has held two sessions of a summer school devoted to topics and methods similar to those which Professor Blakeslee originated here, but with far larger sums at its disposal.

tally brought him unexpected financial gains. On leaving here he had nearly completed a high-school text on similar original lines which was no less important. He was a passionate lover of nature in all her aspects and based all his work on the assumption that every one had this passion, and that even in those in whom it seemed latent it could readily be evoked. As these subjects have, unfortunately, in the public schools been subordinated to the more exact sciences, especially physics, the influence of such a man has been as good as it has unquestionably been great. In successive seasons he interested most of the school children in the city in anti-fly, mosquito, and clean-up campaigns, school gardens, school and home cultivation of flowers, war upon caterpillars and browntail moths, etc., issuing himself and providing from government sources various instructive leaflets for both school and home use.

Perhaps there is no class of cultured men to whom our ideals and somewhat unique organization seemed more anomalous than to college and university presidents, although to this rule there are a few and but few very striking exceptions. To most academic administrators an institution that was not under the necessity of showing an increase of its student body and its budget in every annual report, failure to do which for a series of years would have, in general, meant their own withdrawal; the subordination at every point of size to quality; our practical disregard and independence of student fees; the fact that if the total expenses of the University were divided by the number of students the quotient would show that vastly more was expended for each here than anywhere else; the absence of all college work during the first decade, and the very sharp line of demarcation later drawn between graduate and undergraduate work and the independence of and greater

stress laid upon the former as compared with the latter, safe-guarded by our dual organization; the predominance of the teaching function for the presidents of both institutions; our insistence not only upon including higher education in the scope of pedagogy but the fact that it was the president himself who gave courses upon the history and present organization of the higher institutions of learning; the stress we always mildly laid in the Association of both the New England Colleges and of the American Universities that their policy should include international considerations and a comparative view of what other leading foundations for the advancement and diffusion of knowledge the world over were providing; the requirement of only two hours of teaching; the very few rules and faculty meetings; and the primacy we gave to research, seemed to most of these heads of institutions and the majority of deans to be something passing strange and anachronous. Fruitful investigators the world over who knew of our aims have always expressed the keenest sympathy with them, but to officials, as we had too often occasion to realize, we were only a voice crying in the wilderness. And yet I think we have all always felt that, despite our insignificant size, the modesty suggested by this which I think we have never lost, that voice should always be heard on certain occasions.

In looking back upon our very checkered fortunes during my thirty-one years as the head of the University, nothing impresses me more than our courage during the dark period ending in 1900. Almost no one outside suspected our dire poverty and we had such intense faith in our ideal that we commemorated our tenth anniversary, in 1899, when things looked blackest, by inviting, as we saw above, distinguished *savants* from abroad and at home for a week and

were heartened by spontaneous congratulations from over a hundred different academic institutions, twenty-eight of them in Europe including leaders in science from the Universities of Paris, Cambridge, and Berlin (which latter cabled us its *Vivat, Crescat, Floreat*) so that we felt overwhelmed, like Tarpeia, by the quality and source, even more than by the number, of the good wishes and hopes that poured in upon us. What was it that thus kept up our spirits?

It was nothing less than the conviction that we represented—small, weak, and unworthy as we were—the very highest vocation of man—research. We felt that we belonged to the larger university not made by hands, eternal in the world of science and learning; that we were not so much an institution as a state of mind and that wherever and to what extent the ideals that inspired us reigned we were at home; that research is nothing less than a religion; that every advance in knowledge to-day may set free energies that benefit the whole race to-morrow. We believed that there was no joy in the world like the eureka joy of discovery in the heart of an investigator who has wrung a new secret from nature and advanced ever so little the gospel of truth, whether to confirm faith, prevent illness, deepen self-knowledge and that of society, or give man mastery over the physical, chemical, biological, social, and psychic energies that control the world to-day and will do so more to-morrow.

We realized that the professor in a university is a very different man from one in a college; that he must specialize more and keep in vital rapport with everything that every creative mind in his field is doing the world over; that he must hear every syllable that the muse of his department utters to everybody everywhere and invite it to speak new words through him; that there is a vital sense in which he stands in closer relation to his coworkers in other lands than to his

colleagues in the same building; that the momentum of the *élan vital,* which has animated the whole evolutionary process and made every advance, has its highest expression in him and impels him to penetrate a little farther into the unknown, to erect some "kiosk in Kamchatka" where he can wrest some new secret from the sphinx, realizing that she has far more to reveal than all she has yet told; that whenever he grows impotent to do this he becomes only an emeritus knight of the Holy Ghost of science; that it is perhaps the hardest thing in the world to become and remain a productive investigator, up to the minute in all the journals and books he must read, observations he must make, and experiences he must give himself, alert in the incessant alterations and adaptations needful to put home to her the questions he asks nature and to get her answer.

There is so much that is new to-day and will be obsolete to-morrow that it is very hard to maintain *la fonction du réelle* and resist the inertia that impels us all to take some kind of flight from reality and its ever pressing *devoir présent* by lapsing to the easy life. Thus research is hard and the life it demands is beset with dangers, so that many are always falling by the way without giving any sign of their demise to others. But for every soul charged with the spirit of adventure, which has impelled every great advance of the race in the past and takes this supreme form to-day, all these dangers have their abundant compensation. The best experts who devote themselves to this work do so because they love it. Many of them might have achieved large worldly success in other fields and utilized the patent office to the uttermost. But they know the price they pay and are willing. They are and must be absolutely free, not only to teach, investigate, and specialize perhaps narrowly, but also to develop their individuality to the limit with

entire freedom. The university ought to be the freest spot on earth, where human nature in its most variegated and acuminated types can blossom and bear fruit. The factory type of efficiency has no place here. Of course each must make himself as efficient as possible, but in his own way and independently of all outer constraint, and the organizer from without who imposes administrative mechanism upon such minds may be an almost unmitigated curse.

To my mind one of the most pathetic and cogent illustrations of the fact that the university is becoming the real church of the future is found in the most elaborate parliamentary report ever published in Great Britain, containing some forty volumes and which was nearly nineteen years in the making, covering every British charity of every kind, some twenty thousand in all. The conclusion of this committee is that of all the objects of charity the highest education has proven wisest, best, and most efficient, and that for two chief reasons: first, because the superior integrity and quality of the trustees who consent to administer such funds, together with the intelligent appreciation of those aided by them, combine to furnish the best guarantee that they will be kept and perpetually administered in the purpose and spirit of the founder whose name they may bear; and, second, because in improving higher education all other good causes are most effectively aided.

Since the first endowment of research in the Greek Academy, Porch, Grove, and Garden, from which all our higher institutions have sprung, thousands of spontaneous, free-will offerings have borne tangible witness to the sentiments so often and vividly taught by Plato, that in all the world there is no more worthy object of reverence, love, and service, and none that it pays a civilization better to help to its fullest development than well-born, well-bred, gifted, and trained

young men who desire to be masters in an age when experts decide all things, since in them is the hope and the future leadership of the world, and to help them to more of the knowledge that is power is the highest service one generation can render the next. And how this has appealed to all ages! Oxford and Cambridge have 1,800 separate endowed fellowships and scholarships, to say nothing of the smaller "exhibitions." Leipzig has 407 distinct funds, the oldest dating 1325, and wherever the higher academic life has flourished we find scores of memorials bearing the names of husbands, wives, parents, children, and providing for students of some special class, locality, or establishing or benefiting some new department or line of investigation, theoretical or practical; and now that the rapport of business, government, and all social and cultural institutions is so close with science, all who give greatly and wisely to its advancement, or who make or suggest bequests, have a new *noblesse oblige* to consider.

Our courage was great because we felt that, compared with our means and size, we were fitting more men for higher degrees and chairs in other institutions; were publishing more original contributions; maintained closer and more inspiring contact with our advanced students and gave them more help outside the classroom; were freer, because no one here had ever suffered in any way for his opinions; had more autonomy in our departments, each of which was a law unto itself; had fewer rules and formalities; had a president who was more professor than administrator; and spent less time and energy in seeking contributions and publicity, than any institution in the land.

Leadership of a university thus conceived requires not only the widest but the wisest and most incessant orientation, more so, in a sense, than does statecraft,

because its function is to train leaders, since, as universities go, so the country will go a generation later. The really wise and competent head of a modern, and especially of a new university ought to attain and retain close and vital rapport with similar institutions, not merely his immediate competitors but throughout the world. The time is at hand when university rectorates, presidencies, chancellorships, or whatever their name, can no longer be filled by any professor or even outsider who can secure election, but will require men who, whatever else they are or know, are experts in the history of the higher culture and its institutions who know the lessons of ancient Greece and Rome, the story of medieval universities, first under the Church and then the State, of the guilds of scholars, the rise and present status of learned societies and academies, the great reforms of the past and the yet more significant reconstructions now evolving, the governmental patronage of learning and research from the day of the Medici down to contemporary legislation for higher institutions, national and state, present-day centralization and the efforts against it in France, the many universities lately established by colonial policies, the world-wide movement of university extension, etc. He must suggest to his colleagues ways and means for achieving their own ideals, even if they are unconscious ones; help free investigators to be the supermen they are called to be, each in his own way; have a minimum of arbitrary authority and a maximum of faculty coöperation; catch and sympathetically respond to and find his chief inspiration in the fondest, highest, if secret, aspirations of each of his coworkers, who must not be content with the stale ways of the present perfervid competition for dollars and students or with mere horizontal expansion, the multiplication of machinery or devices for efficiency of factory type, but study precedents, culture trends,

and believe profoundly in the power of faculty democratization and do his utmost to develop it, regardless of his own personal or official prestige or authority.

On the continent of Europe, mayors are trained professional experts and cities vie with each other competitively for their services and find they can well afford to do so, for their special training means vast economies. Universities in this country, if not the world over, would surely profit quite as much as cities by this method. To my mind there should always be a specialist in every institution in what might be called higher pedagogy and in academic history, whose business it should be to keep keenly alive to all that is doing in academic life the world over. Especially now, when these changes are so rapid, some one must spend much time in the outlook tower, and I would even hazard the strong opinion that had foreign institutions had a specialist in the conning tower, intent on studying the ever changing signs of the times and trained in academic statesmanship, many, if not most, of the errors that have caused our own and foreign universities so much waste of energy in recent years, might have been avoided. As the academic field becomes larger and its problems more intricate, this survey must be ever wider and ever renewed.

Just before the war, academic unrest was greater than ever before, and the future never promised so many important changes. Certain abuses, both large and small, had crept in and there were vicious tendencies, and a great reform seemed impending. Beginning with the Teutonic countries, since 1907 the assistant professors and docents had developed a strong interinstitutional organization against the head or full professors. The unprecedentedly rapid growth in the size of the student body everywhere had resulted in what Eulenberg called a lush *"Nachwuchs"* of assistants of all grades. Statistics show that on the average

the *Extraordinarii* or assistant professors received this apointment at the age of 37, at an average salary of $523, and remained in this position nearly 20 years, attaining an average salary of $1,200, before promotion, at the average age of 57. These constituted, with the docents, about half the teaching personnel of German institutions, and they often had neither seat nor vote in the faculty and little participation in the corporate life of the institution. (In the municipal university which opened at Frankfurt in 1915 it was even proposed to have a president of the American type so as to safeguard the assistants from the oppression of the full professors.) Some years ago Tübingen, and later Zurich, radically revised their ancient statutes to remedy these evils, and the projected university at Hamburg planned to go yet further. The two newer universities in Hungary, at Pressburg and Debreczen, and the private one at Hongkong, proposed more liberty and showed more appreciation of the enthusiasm and ideals of the younger members of the faculty.

Even students in Germany caught the spirit of unrest, if not revolution, and had a strong interinstitutional organization. Their pamphlets boldly demanded better methods of teaching and printed outlines of professors' lectures. An attempt was made to develop a sentiment that no instructor should ever repeat in a lecture anything he had published. They called for more options, especially greater freedom of choice in the selection of subjects for their theses and more meaty topics for them, that their work be not made merely ancillary to that of the professor. They further demanded personal rights to what they produced or discovered in their work, a longer period of *hospitieren* or of trying out each course before they finally signed for it, more and better seminaries with better tests for admission, more practical courses, bet-

ter access to books, journals and library facilities generally, less overcrowding and more elimination all the way from *Ober-Sekunda* in the *Gymnasium* to the doctorate; better social opportunities, dormitories, more personal contact with the professors, less restrictions on their personal liberty, reform of the corps, honor system, and the *Mensur*. This unrest, although it seemed ominous to conservatism, could not fail to prevent waste and bring reform.

In the English universities agitation took many forms, from Lord Curzon's demand for reforms in 1909 to Tillgard's in 1913. Here the protestants argued that these institutions were still breeding that flower of national life, the English gentleman, but demanded better library facilities than the individual colleges, with their wasteful duplication, afforded, and especially more of what the critics so strenuously insisted was lacking and that parliament should enforce, namely, teaching and research. Thus the deepening sense that something rather radical had to be done seemed crystallizing into just what that something should be. In France and in Russia unrest was greater and reforms even more loudly demanded.

In this country academic unrest has been largely directed against organization and administration. In old days the college president, though he usually taught, was supreme and autocratic, and as leading institutions grew and he ceased to teach, the concentration of power in his hands became altogether excessive. The foundation of new institutions, the Hopkins, and a little later Stanford and Chicago, greatly augmented his power under our system. He had to determine the departments, select professors, fix their status, build, organize, represent the institution to the board and public and perhaps the legislature, plunge into the mad, wasteful competition for students and money, and lay supply pipes to every

institution that could feed his. Never was the presidential function so suddenly enlarged nor its power so great and uncontrolled as a decade ago. Even the University of Virginia and other southern universities, which had only a president of the faculty elected by its members, fell into line, and a reaction toward democratization, which in its extreme form seemed sometimes almost to adopt the slogan, *"Delindus est prex,"* was inevitable. In the Cattell movement abundant incidents of arrogance and arbitrary, if not usurped, power were collected, and it was even insisted that although charters or conditions of bequest, to say nothing of American tradition, would have to be revised, the president should be only chairman of the faculty, elected perhaps annually by them, and in the literature of this movement we find occasionally the radical plea that some or all of the powers of the board should be turned over to the faculty, who should at least be given control of the annual budget.

More lately the movement of protest here was against the autocracy of the dean, whom the president had created in his own image and who sometimes exercised a power that he would never dare to do, and who in large institutions constructed a mechanism of rules, methods, procedures, and standards that have almost come to monopolize the deliberations of the Association of American Universities, which fortunately cannot prescribe or legislate for its individual members. University deans have often created rules which they themselves can suspend for individuals, and this has greatly augmented their power. It is they largely who have broken up knowledge into standardized units of hours, weeks, terms, credits, blocking every short cut for superior minds and making a bureaucracy which represses personal initiative and legitimate ambition. Just before the war perhaps we heard most remonstrance against head professors,

and statements that the assistant professors and younger instructors in their departments were entirely at their mercy, that they were burdened with the drudgery of drills, examinations, markings (all at small pay) while their chiefs took the credit, so that the best years of the best young men, who are the most precious asset of any institution, or even of civilization, were being wasted. Indeed, we have vivid pictures of the hardships which often crush out the ambitions of young aspirants for professorial honors and tend to make them, if they ever do "arrive," parts of a machine with no ideals of what sacred academic freedom really means. Happily the best sentiment of the best professors now organized interinstitutionally to safeguard their own interests and those of their institutions represents a most wholesome and needed movement which is sure to prevail.

Thus at the outbreak of the war, with all these and many more problems pressing for solution, with the wholesome influence of de-denominalization and stimulus to higher standards and comparative views emanating from the Carnegie Foundation, and with the very slow and hard but real progress we were making in developing the true university spirit in this practical and material age and land, it seemed as though we were slowly but surely entering upon a new era.

Then came the war with all its perturbations and distractions. When we entered it, faculties and, still more, student bodies were depleted, the S. A. T. C. was introduced, and although our institutions suffered less than those in Europe, nevertheless most of the above problems were forgotten and their promise unrealized, and necessarily there was a great deal of marking time while all our academic machinery ran on a loose pulley. The rapidly increasing high cost of living gave financial problems the supreme place in

every academic institution. Hence the first result of the war was necessarily fevered "drives" to augment funds, especially for professorial salaries. Although academic halls were again crowded and as never before, the pressing question was not the extension of academic work or the solution of prewar problems but an active and almost desperate struggle to live. Many instructors were unable to continue teaching and left for more lucrative fields.

Meanwhile the practical applications of science received indirectly a great stimulus from the war, and some departments, particularly perhaps those of chemistry and psychology, found themselves more or less in the situation in which geology had long been, where pure science must compete at great disadvantage with applied science. In this situation not only these departments but, to some extent, physics and economics also were subjected to the strongest temptations to turn from culture to *Kultur*. Perhaps in no field was this temptation stronger than in psychology, for the demands of business in the way of advertising, salesmanship, fitting the man for the job, etc., were importunate and sudden. Scores of the best minds in this department were stimulated first of all by the war, which had shown the vast economies of personnel work for the army, to devote themselves to devising innumerable tests for every kind of excellence or defect and measuring native or acquired ability for scores of occupations, and even fitness for college entrance. The sudden realization by psychologists and by the public of the vast economic importance of assaying human nature as a chief factor in production has given this science a very wide currency in popularity and a real usefulness which it never enjoyed before. But, on the other hand, it must not be forgotten that all this work has added very little, if anything, to our real knowledge of man, and in that re-

spect this movement inclines far more to *Kultur* than to culture.

The present situation, thus, is unprecedentedly full of possibilities good and bad. Never was so much sagacity demanded on the part of leaders in real university work as now. The problems now facing us are not chiefly those of 1914 but new and larger ones. Funds have poured into all coffers but there are new demands and openings for usefulness for which the present is the psychological moment. The future was never so pregnant and never so uncertain. No really great academic statesman, which the hour so imperatively demands and who proverbially ought to appear if needs make men, has arisen. Our religious life and institutions need a new soul; our national morale, so high during the war, has sunk to an ominously low level; national, corporate, and individual selfishness are striving to get into the saddle; the solution of the problems of labor and capital needs intelligence of a higher order than we have yet been able to produce; our statecraft should take on international dimensions; our school system needs not more mechanism, which scores of experts have lately developed to such ominous proportions, but a new vital inspiration in the spirit of the great reformers of the past; in the problems of sex, children, and the family everything bids us go back again to first principles; in the domain of technic and inventions, in all the arts of war and peace, competition is to be international as never before; the great problems of race and immigration confront us; the question of the relative value of the international and national ideals demands an answer; and how can we set a backfire to bolshevism or to the violent programmes of the "Reds"?

Have our higher educational institutions found or can they make the pioneers which the exigencies of the hour demand? This is the present form of the

great problem whether or not democracy, to which the world has so rapidly and precipitately come, is, after all, the best form of government; whether this country, its chief representative in the world, is setting the fittest pattern for others to follow, and whether its achievement and success have been so signal as to convince the world that on the whole it is the best for all mankind. It is to solve such pressing problems of the hour, where the highest interests of mankind are involved, that universities were first created, and it is this alone that gives them their present *raison d'être*. They should feel it their supreme duty to assume such tasks and grapple with such problems, and should feel responsible for seeing to it that they are solved up to the very limit of human capacity, while even the investigator should feel that science itself is only an organ for the further development of the human race, to which even its interests must be subordinated.

Under our American system the difference between the board, which administers and, subject to the condition of the gift, owns all its funds, and is made up of business and professional men, on the one hand, and the faculty on the other, is generally very great, greater usually than either suspects, and to the president falls the often very difficult task of mediation between the two. He has to represent each to the other. When I first came to Clark, Senator Hoar told me in the presence of the board that one of my chief functions was to educate him and its other members. In a no less pregnant sense faculties, especially younger members, have to be educated in ways that involve no less tact and watchfulness to enable them occasionally to glimpse the attitude of the board. Sometimes the latter may be swept by a special sentiment or public opinion to drastic action that results in the most critical tension, and there are also groups in every faculty that are capable of any folly.

If in 1893 our dissatisfied instructors had had the sagacity to press home upon Mr. Clark himself, as Judge Devens had done as a representative of the board, the question of just what his ultimate intentions were, our crisis might have had a very different issue. I once had the experience in later years of a formal visitation by a majority of our staff, led by an able but disaffected new member, with a list of demands inspired by him which were utterly impossible and which, if persisted in, would have precipitated the gravest issue between the two bodies. Yet less than two years later these very professors, when I withdrew leaving the fate of their quondam leader in their hands, voted unanimously that he should leave the university. On another occasion the board would have passed a vote excluding women from the university in any capacity but for my earnest plea to wait until the next meeting, when I was able to show that their presence had been recognized and provided for by more than a dozen previous votes they had passed, and that such drastic and immediate action would greatly cripple some of our departments and involve the breaking of engagements to which we were bound. On another occasion I had to present certain summary demands that I could not restrain the faculty from making, which would have involved abdication of certain powers given to the Board by our very charter. I could only resort to the Fabian policy of delay, and with time these demands were partly forgotten and partly waived. Thus even in a small institution where the president is two thirds professor, where each department is a law to itself, and with a board which has always exceptionally refrained from interference in the internal or scholastic management, the administrative officer often finds himself between the upper and the nether millstone.

Faculty representation on the board is inevitable

and has begun in many places, and this is sure to be a method of *rapprochement* between the educational and financial functions. It is of basal importance that the faculty control all teaching appointments. But, on the other hand, a presiding officer responsible to the board, even if appointed by the faculty, will always be necessary. It is, therefore, in my view a grave fault that in the unprecedented development which departments of education have lately had in this country no provision whatever is made in any of them for training for presidencies or even deanships, to which there are now scores of appointments made annually in this country. It would almost seem as though university should be, to some degree, separated from college administration, so diverse are the methods and aims of the two.

We have already a formidable and growing list of institutions in this country devoted solely to research in which little or no teaching is done, like the Rockefeller and Carnegie Foundations, Woods Hole, astronomical observatories, etc., and the problem of a vast national university at Washington, coördinating the theoretical and practical and utilizing the vast museums and libraries of the Capital, is always recurring. Our ablest scientific leaders, however, differ widely as to how and to what extent the functions of investigation and teaching should be united or separated.

Another perennial problem discussed at every pedagogic meeting is the relation of academic to secondary education. Of old, the college dictated and prescribed to fitting schools to a degree that made them abjectly servile, but of late the wholesome sentiment has grown apace that these latter institutions have their own independent ends and must do for the boys and girls who frequent them the best they can to fit them at their stage for life. It is this almost more

than anything else which has interfered with real democracy in education and prevented the high school from becoming, as it should, the people's college.

As I close this record, made upon my own retirement after thirty-one years of service, it is a great satisfaction to believe that Clark University is about to enter upon a new and larger career. If there has been any waste—and I think this very slight as the heads of both University and College have been also professors—it will now be entirely removed. Small as Clark University is, it has really an enviable record. Its two products are, the one represented by its graduates and former students who are found in nearly every faculty of the country and so many of whom have already achieved signal distinction, since nearly every one who comes here is preparing for a teaching position in some higher academic institution. Our alumni are, as compared with the graduates of other institutions, without large wealth and only three of them are reputed millionaires, so that we can never expect to draw largely upon this body for additions to our resources. But, on the other hand, their loyalty to the institution is, I believe, altogether exceptional, as I have had very special reasons to observe since my retirement. Some conviction of this has been gained from the several hundred letters that have come to me from the alumni.

Our other distinction is our scientific productivity which, as many outsiders have testified, has been, in proportion to our size and wealth, far in excess of that of any other institution. The one hundred and four feet of shelving filled with journals, books, memoirs, and other publications by Clark men it would be absurd, of course, to measure by quantity, but we believe that in quality it compares favorably with the output of other institutions.

CHAPTER VIII

PROGRESS IN PSYCHOLOGY

I. At the Johns Hopkins—The field of instruction there and the researches undertaken by the department.

II. Evolution—My early passion for the genetic view of things which began with Hegel and culminated in Darwin, Spencer, Haeckel and Weismann—History of developmental stages with links bridging all gaps as the most perfect form of knowledge —Psychology now in a pre-evolutionary age, studying a cross-section of the adult mind, hyper-methodic, and based more on physics than on biology—Juvenile experiences favoring this penchant—The soul as truly a product of evolution as the body, which has no organ or function not found in animals— My general course on the development of life and mind—Its great educational value despite its superficiality—The main topics treated.

III. The courses on animal life, habits, and instincts—Method and ground covered—The approach of the naturalist and the method of the laboratory—The species described from protozoa to the Java man—Ideals and needs in this field but lack of interest on the part of students—Original work here.

IV. Child study—Brief history of the movement—Merit and defect of its methods—Description of the latter—Pioneers in this field—Topics of questionnaires and papers on the subject at Clark—Attempts to coördinate child study with the scores of child welfare organizations listed—The reminiscent and observational approach—The Binet-Simon method—The conferences at Clark—The Children's Institute and its personnel —The Pedagogical Museum—*The Journal of Applied Psychology*—Ulterior plans and disappointments.

V. Sex psychology and pedagogy—Causes of the hyper-function of this element in man—How sex differs from all other pedagogy—Freudianism: its advent, value, and defects—Pedagogic dangers here—Experience and conclusions on teaching sex subjects.

VI. Food and appetite—The function of hunger in natural selection and in the history of the animal world—*Apperçus* from various sources—The contributions of the Pavlov school in contrast to that of Wundt—Its value as a method—The con-

tributions of the new endocrinology to psychology—Conceptions of appetite—The conditioned reflex and its pedagogic value—Its resolution of psychology into physiology, the real source of behaviorism—The sialogic reflex—The inferences for epistemology—What is cerebral hunger?—Result of fasting experiments—Culmination in morale.

VII. Religious psychology—The development of this course the consummation of *éclaircissement*—Religious psychoanalysis as the basis of new affirmations—Completion of the eschatology of Schweitzer—The quintessence of my *Jesus, the Christ, in the Light of Psychology*—The death and resurrection *motif,* its value for life and its normative influence in literature—Berkeleyism a symbol of emancipation here—All the supernatural a symbol.

VIII. Some Outlook Tower views of present-day psychology—Five insoluble problems: the psychophysic law, Lange-James theory, parallelism and interaction, structural and functional, introspection versus behaviorism—Current trends, present prospects, and needs in this field—Group souls as real as those of individuals—Enumeration of the points which the psychology of the future will have in common with sociology—My experiences in trying to know myself—The eight deeper tests: (1) health, (2) second breath, (3) free movement up and down the pleasure-pain scale, (4) sympathy, (5) love of nature, (6) sublimation, (7) activity vs. passivity, (8) loyalty—The type of man needed for psychological leadership.

I

Up to the time of leaving the Johns Hopkins, besides my own experimental work in psychology and that of my students as reported at the end of Chapter VI, I had published the following: *A Study of Voluntary Muscular Action,* with Professor Kronecker; *A Study of the Reaction Time in Indirect Vision,* with Von Kries; a myological study with Ludwig of Leipzig (these three printed in German); a paper on color perception; *The Muscular Perception of Space;* and *Recent Researches on Hypnotism.*

I had been intensely impressed with the idea, to most a novel one then, of subjecting psychic processes to the control of scientific and experimental methods, an idea that had originated in physiology, which had

thus studied vital processes and within the domain of which originated what was then called the new or scientific psychology. It was then in the golden period of its development. This ideal owed much to Fechner and to the great attention then given to the psychophysic law, which we have now almost forgotten and which had perhaps its earliest and most classic illustration in the epoch-making studies of tactile sensations by Weber and Fechner which had been so laboriously carried out and written and rewritten in Latin and German. Of the further development of this impulse Wundt was the pioneer.

This idea of subjecting psychic processes to exact, objective, and experimental methods had become almost an obsession with me, and along with this was the ideal of going back to genetically elemental processes like the dermal sensations and subjecting all these to measurements in terms of space, time, number, etc. We glimpsed dimly the wider biologic background which should never be lost sight of in this field, and the Hopkins papers show abundant traces of the burgeoning of introspection, although none of us then ever dreamed of the great rôle it was later to play. We did not, even in these experimental papers, limit ourselves very rigidly to the actual findings under conditions we prescribed but always felt it necessary to give expression somewhere to hints, *apperçus,* and suggestions for future work.

Moreover, it was then impossible in general, and perhaps particularly for me, to entirely eliminate philosophical and even educational interests so that to this period also belong several other much belabored papers, especially "The Moral and Religious Training of Children," [1] "Chairs of Pedagogy in our Higher Institutions of Learning," [2] "The Education of the

[1] *Princeton Rev.,* 10:26-48.
[2] *Bur. of Ed. Circulars of Information,* No. 2, 1882, 35-44.

Will," [3] "The Contents of Children's Minds," [4] "New Departures in Education," [5] and perhaps especially "The New Psychology" [6] and "Experimental Psychology"; [7] "The Story of a Sand Pile," [8] and three volumes, namely, *Hints Towards a Select and Descriptive Bibliography of Education* (with J. M. Mansfield), which listed and evaluated the chief works on education by topics and grades; *Methods of Teaching History,* in which seventeen of our leading academic teachers of this subject described at length their methods. (It was my purpose to make this latter volume the first of a series on different academic topics, but there was so much mutual criticism, not to say rivalry, developed by a method so comparative that the work of editing such a series became too difficult and even painful and the plan was abandoned.) To this period also belongs my *How to Teach Reading and What to Read in School.*

Thus the Hopkins activities, although they were intense and had a definite or experimental focus, were nevertheless diverse and somewhat scattered.

II

As soon as I first heard it in my youth I think I must have been almost hypnotized by the word "evolution," which was music to my ear and seemed to fit my mouth better than any other. I cannot conceive why I seemed thus predisposed to an interest in everything that could be brought under that term. Of course on the farm I was constantly realizing that everything animate grew, but every country boy knew this. As a lad my mother remembered that I had

[3] *Princeton Rev.,* 10:306-325.
[4] *Princeton Rev.,* 11:249-272. Same in *Ped. Sem.,* June, 1891.
[5] *No. Am. Rev.,* 140:144-152.
[6] *Andover Rev.,* 1885 (3:120-135; 239-248).
[7] *Mind,* 10:245-249.
[8] *Scrib.,* 3:690-696.

been rather unusually inquisitive about the origin of babies, as indeed every child is more or less at the same period; and I used to ask if God, whom I always conceived as an old man, had ever been a baby, and the same of the devil. I think my curiosity somehow got an early tilt toward origins, and even in college I brought much censure upon myself by advocating the view that man had sprung from ape-hood. Myths and fairy tales of metamorphosis, too, had a fascination. One of my boyish collections was of seeds of every kind I could gather and one of my most frequent marvelings was at their potency to become complete plants or trees. I often looked for embryos among the entrails of animals butchered on the farm and of birds and beasts I shot. I wrote a crude college essay on the nebular hypothesis and was immensely impressed by my first sight of the Hitchcock saurians in the Amherst museum, so much so that I was stimulated to dabble in paleontology.

But it was in the field of philosophy that this *penchant* found its first deployment. For my German teacher, Trendelenberg, as I have said, *werden* or "becoming" was the prime category and the mother of all others, and this helped to predispose me to accept all I could understand of the Hegelian logic, in which all innate ideas evolve by an inner necessity from those that precede, by his three steps—thesis, antithesis, synthesis—which gave the key not only to his history of philosophy but to his philosophy of history, as God coming to consciousness in man. To conceive the Divine as a system of ganglia of reason which underlay and shaped all things seemed to me the consummation of philosophic endeavor. Schelling's system in my mind ranked next because it treated all organic and even inorganic nature as steps in the unfoldment of a mighty process. Matter was sleeping mind. Mind was matter awakened, and

vegetable and animal life and mind showed the stages of this awakening. Thus there was a kind of mystic, poetic stage of prelusion by which Darwin, Huxley, Spencer, Haeckel, and even Tyndall were, it seemed to me, prepared for in my philosophic history, and when these latter loomed large upon my horizon they were devoured with the utmost avidity. This was a stage of my development that was perhaps most rapid during the Antioch period, at which also I became most deeply interested and read most widely in the higher criticism which began with the Tübingen school.

To conceive the whole world, material and spiritual, as an organic unity, to eliminate all breaks and supernaturalism, and to realize that everything within and without was hoary with age, so that in most experiences we were dealing only with the topmost twigs of vast but deeply buried trees, gave me a totally new aspect of life. Inconsistencies troubled me little but I was everywhere in avid quest of illustrations of developmental stages to span all chasms, and I conceived all creative processes as still active, all about me, and above all felt that there was nothing really dead but that there was everywhere life abounding, filling all possibilities everywhere, which gave and still gives the deepest intellectual satisfaction that I have ever known. I was bat-eyed to difficulties and impatient at objections, and had a blind spot in my mind for every break in the developmental order and implicit faith that if there anywhere seemed to be gaps it was only because we lacked adequate knowledge. Somehow, sometime it would be proved to the silencing of all doubters that all worlds and all in them had developed very gradually and by an inner and unremitting impulsion from cosmic mist and nebulae—and perhaps even this would be resolved into something more primitive—while all religions,

gods, heavens, immortalities, were made by mansoul, of which a perfect God was perhaps the noblest creation; that man sprang from primeval amœba of which chemistry would some time tell us the origin and perhaps be able to reproduce; that every human institution, organization, and even science itself were but the unfoldment of infantile impulses in man, the sources of which could be traced back to the very dawn of the psyche in the lowest forms of animal life; that spontaneous generation, although not proved, must somehow be true; that life had a chemical basis; and that perhaps even atoms, like Haeckel's plastidules, had souls of which the human psyche was only an aggregation. And I could even sympathize with Fechner's dreameries about souls of molecules, plants, and planets.

In the days when my interest in child study was at its height I was once introduced to an audience by an overzealous friend as the Darwin of the mind, and extravagant and absurd as I knew this to be, it gave me more inner satisfaction than any compliment ever paid me by the most perfervid friend. To contribute ever so little to introduce evolutionary concepts into psychology, where they were practically unknown, and to advance the view that there were just as many rudiments and vestiges in our psychic activity and make-up as in our bodies and that the former was just as much a product of slow evolutionary tendencies as the latter, comprised about all my insights and ambitions. Along with this went an ever deepening realization that psychology had felt the influence of Darwinism vastly less than any other science that dealt with life; that it lived, moved, and had its being in a preëvolutionary age; that genetic studies here were not appreciated; and that psychological orthodoxy had no scintilla of interest in the ulterior and to me ever recurring problem of how

psychic traits and trends arose in the phylum or even in the individual. The study of a cross-section of the mature mind and a description of how it responded to the general incitements of the environment or even to the controlled conditions of the laboratory, valuable and interesting as these were, seemed to me only the first stages of any inquiry and to be applicable only to a very small part of psychic life.

I was also early impressed with the very fruitful conception that psychic degenerations could never be completely understood unless we also considered them as always involving more or less devolutionary changes; that instincts, feelings, emotions, and sentiments were vastly older and more all-determining than the intellect; and that scientific psychology was becoming more and more prone to flout the good old Aristotelian dictum to the effect that it was only affectation to treat any subject by more exact methods than the subject matter required. Hence I felt that laboratory psychology had been influenced too much by the exact physical sciences and not enough by biology, not only in its quest for psychic elements by analyzing controlled experience in the laboratory but also by hypermethodic mathematical treatment of its findings, which should have laid to heart more than it did the results that had sprung from the collapse of Herbartian and later the Fechnerian equations. From this point of view, too, it seemed that the importance being attached to the differences between structural and functional had been overestimated and that in this respect, as in so many others, psychology had emancipated itself from metaphysics hardly more than the psychic researchers had from the religious problem of the perdurability of the soul after death. It seemed to me just as necessary for a scientific psychology to be as independent of the questions of philosophy as the latter had so effectively sought to

free itself from theological influences. From this standpoint I always had a very warm interest, too, in the Comtean hierarchy of sciences, and I confess to a warm side always for even the radical reconstructions of sociology laid down in his *Politique Positive* and his worship of the intuitive elements of the soul, which he found best embodied in *Das Ewige Weibliche.*

With such *apperçus* I naturally felt profoundly that the taboo which the Church and many higher educational institutions laid upon the teaching of evolution was hardly less than an emasculation of the ephebic mind. It interdicted the application of the greatest intellectual stimulus of the modern age. It conducted youth through its most active nascent stages of growth up to maturity sheltered from the most stimulating of all modern culture influences and brought it into active life crippled and deformed. I felt that biology in its large scientific aspect and with its rich practical results for hygiene and mental, moral, and physical regimen and its immense perspective and unprecedented spur, ought to be taught in every high school, and it seemed to me anticultural, mechanical, and even materialistic to have made, as we did, physics the door through which young people entered the vast temple of science. It seemed to me a culture calamity without precedent that the enthusiasm that every able and trained mind the world over felt for evolution, which was really their confessed or unconfessed religion, was not encouraged to spread its benign infection wherever adolescents were taught, for where it had free course it brought an *éclaircissement* from which so many dated the birth of a new intellectual life. I believed that the culture historian of the future would rank the ban now being placed upon the teaching of evolution as no whit less noxious, if not in a sense more so, than the inter-

diction of the church upon science at its dawn. It even seemed to me that evolution rightly and broadly interpreted gave a new basis for democracy and government of, for, and by the people because the basal assumption of this political ideal is that the folk-soul can be trusted, and this trust can never be complete until we fully realize that everything great and good in the world, including religion, science, and the social and industrial order, has sprung out of the unfathomable depths of human nature. All this fadged in with the view that the history of philosophy as generally taught was one-sided and narrow because it did not include the history of science—due recognition to which is just beginning to be given, as I write, by a few of our most advanced institutions—and because it should go hand in hand with culture history generally.

Thus when I resumed teaching at Clark in 1893, having turned over the laboratory work to my colleague, Dr. E. C. Sanford, I started and have given ever since one course which I generally call psychogenesis, in which, beginning with the general concepts of time, space, and energy as the backgrounds, I have tried to trace roughly the stages by which the soul has evolved, briefly and very superficially sketching the scientific conceptions of nebulae and the stages of planetary evolution. Here I touched upon theories of the origin of life as well as of mind and the eozoan theory, comparing foams and crystals with cells; the reaction formula of paramecia and other unicellular organisms to light and chemical, thermal, and electrical stimuli, so symbolic and so charged with the promise and potency of all higher forms of reaction as is this "if-at-first-you-don't-succeed-try-try-again" formula. I discussed tropisms and the mechanical theories and objective nomenclatures of the Naples school; Weismannism, De Vries, Bateson, etc.; gave

a crude outline of the findings of paleontology; traced the vertebrate plan from the amphioxus up, showing its advantages over the crustacean method of molting and helical growth. I rudely characterized the relations and distributions of land and sea at different geological ages; dwelt a little upon the early origin and development of the life of insects, perhaps the first tenants of the land; the development of streams and bodies of fresh water and their population by inland fish, with something of the habits of the best known forms of piscene life. The story was continued through the golden age of the great saurians when they in turn seemed to be lords of creation, till some of them backslid into the sea and others dwindled, teaching us the sad moral of hyper-individuation which neglects the proper care of the young. Brief mention was made of the rise of the carnivora; gregariousness; the pedigree of the best-known modern animals like the horse and camel; the evolution of the inferior and then of the anthropoid apes from the lemurs up, and the remnants of the extinct fossil apes; what we know about the "big four" that are still extant (gorilla, gibbon, orang, chimpanzee); culminating in the story of the anthropopithecus of Java; and noting some of the theories of distribution not only of these but of some higher and extinct apes known to us only by a few fossil remains. I then sketched the rise of modern anthropology and the troglodytes of the paleolithic age, the theory of Lemuria and other cunabula, the Neanderthal man, who vanished before the better-organized society of the Cro-Magnons. This was followed by the problems of man in the ice age and its effects upon him; the earliest human arts by which man came to use the stick, point, edge, and the string principle, to throw, and finally to use the bow; Rutot's eoliths. I generally mentioned imaginary, and often even wild,

romances of this age like the story of Pic, Tarzan, Stanley Waterloo, Miss Dopp, Conan Doyle, etc., with the attempts made by those like Gabriel Max and Rutot to artistically reproduce early human racial types. A glimpse of not only the old and new Stone Age but of that of bronze, and a rough characterization of the prehistoric data afforded by kitchen middens, pile-dwellings dolmens, menhirs, alignments, monuments, cromlechs, mounds, the images of the Easter Islands, the prehistoric remains of the Viking age, some of the findings in Crete and Anau, etc.; and the more or less clear demarcation of the three great races, Alpine, Mediterranean, and Nordic, concluded the study.

This nondescript course touching so many different fields, extremely superficial and inadequate as it always and necessarily was, had, I believe, a very high pedagogic value. Interest, like steam in an engine, must be developed over a large surface, although when put to work it has to be applied to a small one. No course I have ever given sent so many of my students to the library or, I think, contributed quite so much to give them a general and wholesome conception of man's place in nature. I never thought of venturing into print with any of this material and never did save with two sections of it,[9] and although it was called for and given more often than any other course it was more varied from year to year. Now the study of animal instinct was mainly stressed; again, much attention was given to theories of the origin of language with emphasis upon the light that child study had shed on this problem; at other times religion was emphasized, especially its lower forms, beginning with animism or later with Durkheim,

[9] "A Glance at the Phyletic Background of Genetic Psychology," *Amer. Journ. of Psychology*, 1908, 19:149-212, and "What We Owe to the Tree-life of Our Ape-like Ancestors," *Ped. Sem.*, 1916, 23:94-119.

Levy-Bruhl, and the Mana concepts, and the dawn of social and industrial organization. Almost anything could be given in connection with such a course as this and twice, at least, I specialized on degeneration illustrated by Lombroso's early theory of the identity of the criminal and savage type, and even by Nordau, and the literature he inspired; by Hughlings Jackson's and Mercier's conception of epilepsy and the three levels; and later by Jung's views of dementia praecox and the Freudian regression, and the study of morons and deviates versus precocity and genius. This course was always illustrated by charts and drawings from many sources, so numerous that they occasionally covered both sides of my long lecture room. I gave it from the first with great and growing trepidation for I knew that to every expert in the many wide fields traversed my treatment would seem inaccurate and utterly inadequate. Hence I was always profuse in my disclaimers to my class of thorough knowledge in any of these fields and was always very self-conscious when I examined students on it in the presence of my colleagues. But despite all these handicaps the interest with which students always followed the work, which was greater than I have ever been able to arouse in any other course, made me feel that elementary though it was, fitter in some parts of it for minds at the high school or perhaps college than at the university stage, I must nevertheless keep it up, which I did to the end, because of the perspective and intellectual emancipation it always brought.

I think no other course of instruction I have ever undertaken left my students with a deeper sense of ignorance or keener curiosity and interest, which latter not only remained with them in later life but often animated and perhaps even prompted work in other special but related fields with the aid of the

momentum here acquired. At any rate, few things have struck me more forcibly in the several hundred letters I have received from former students since my retirement than this, and I doubt if there is any greater intellectual need of American students than that which would be supplied by a properly made and judiciously illustrated sketch of evolution with special reference to that of the human psyche, written of course with conformity to the findings of science but with pedagogic edification and stimulus as its supreme end. A perfect picture of evolution is the final goal of history in every field, but one must always remember that it is just as necessary to study what is lowest and first in the light of what is highest, best, and most evolved as *vice versa;* and while climate, soil, and mother earth must always be reckoned with, it must be borne in mind that these are only the bases and conditions of development and that we can never escape the all-pervading urge that expresses itself in Janet's excelsior instinct of perfection as well as in Adler's horror of inferiority and mediocrity. Nor must one forget that of the two aims of education, namely, to give exact and finished results that satisfy and give a sense of finality, on the one hand, and that which, on the other, aims chiefly at the excitement of interest and curiosity, which measures the success of teaching not at all by the volume of acquisition but by the strength and many-sidedness of mental zests and appetites aroused, the latter, although its results can never be weighed and measured by examinations, is by far the higher.

III

There is a sense in which all my active conscious life has been made up of a series of fads or crazes, some strong, some weak; some lasting long and re-

curring over and over again at different periods of life and in different forms, and others ephemeral. The best illustration of one of the strongest of these was my early intense interest in animals, as indicated in Chapter III, fostered not only by close intimacy with many domestic animals but by my early passion for hunting and trapping and by a number of fascinating animal books, including Aesop, LaFontaine, and several more popular works on birds and beasts with colored illustrations. To this day I never lose an opportunity to visit menageries and zoological parks, and have a strange fascination for sitting or standing for hours watching the activities of all kinds of beasts in captivity. This is the most effective foreschool of psychology for the young because the ant, bee, spider and fly, peacock, eagle, lion, lamb, wolf, and almost all the Canidae and the Felidae and many more represent to the child's mind, if it has had any kind of introduction to the animal *Muthos* or has ever caught the echo of the medieval bestiaries, human qualities dissected and magnified, so that acquaintance with animals makes the best pedagogic introduction to the study of human character. There is no doubt, too, a genetic element here because it seems from all we know of primitive life that there was a very long period during which it was more or less doubtful whether man could survive in the long struggle with the numerous beasts which preyed upon him and the killing or domestication of which was such a stimulus to and formed so large a part of human culture.

This boyish fad no doubt enriched the soil for and gave momentum to the great interest I have always felt in comparative psychology and has made this one of my favorite lecture themes for many years, prompting researches in this field to which I have directed my students and impelling me to hire several

assistants to make this work more complete by helping me epitomize everything I could which shed light upon the habits and activities of animals from the amœba to the great apes. In all this work I have always felt it essential to keep tab on not only the experiments in which animals were subjected to tests under controlled conditions but also afield, and in my courses I have not felt it justifiable to entirely ignore even the myths, in view of the great rôle animals have played not merely in early religions and totemism but also in folk cult and *mores,* as illustrated by the legends of Reynard the Fox, which for centuries had such an influence upon the medieval mind. Even fabulous creatures—dragons, the phœnix, the sphinx, and all the rest, add their testimony to the fact that psychology has thus far only just entered a vast field full of rich possibilities as yet unrealized and demanding not only a great new synthesis of all these elements but containing, when our work here is sugared off and its pedagogic facet shelled out, a rare wealth of educational material and stimulus.

If the individual does or ought to rapidly repeat the history of the race in his development, this is the real beginning of every truly genetic psychology. Animals, which have been vastly longer in the world than man, have taught him not only many of the useful arts but have given him ideals of social organization, and the more we know of them the narrower becomes the gap between the brute and human mind and the more unsatisfying become all the many distinctions that have been proposed between them. In my opinion science does not sufficiently honor those pioneers and enthusiasts who have devoted their lives to the study of life in formicaries, hives, or other forms of insect instincts, the very oldest inhabitants of the dry land and whose psychic activities have therefore become most automatic; or those who de-

vote themselves to the very difficult problems of migration, hibernation, hestivation, the various animal societies from colonies of unicellular beings (Espinas) up to the highest expressions of the gregarious instinct in man's nearest forbears, or in general to the habits of those species of life which had been in the making for eons before man appeared and from which every one of his own faculties took their origin, without knowledge of which man can never know himself aright because the completest knowledge and definition of anything in the whole biological world is the full description of all the stages of its development.

I realize, despite the recurrence of this zest to the foreground at intervals for more than forty years and the large body of material that I have accumulated, that I have only made a beginning in a field too vast for me and that even if I had the strength and years to mature it according to the very best of my ability and ideals it would itself fall very far short of what really now could or ought to be done here. What is supremely needed just now is a large, bold, and new synthesis of the material from all these domains of knowledge about the animal soul, and this would give us a new and sounder view of man's place in nature.

Some years I have grouped this material by animals, treating insect life rather fully, then taking up successively what is known of the crayfish, lobster, snail, tortoise, pigeon, pelican, crow, hawk, lemming, porcupine, coon, penguin, chick and hen, goat, buffalo, gopher, horse, emu, seal, beaver, bear, musk ox, squirrel, the great carnivora, monkeys and the larger apes extinct and contemporary, and many more. An assistant exploited the library for standard and even lighter periodical literature upon the subject. At other times I have cross-sectioned this material, tak-

ing up such topics as animal homes, modes of reproduction and treatment of the young, ornamentation and secondary sexual qualities, hibernation, hestivation, migration, animal industries, social organizations, rise and distribution of a few species of which this is best known, animal play, dwelling sometimes upon the economic aspects of pests and parasites—in which latter I had an able coadjutor in my colleague, Prof. C. F. Hodge, who interested all the school children of the city in the conservation of toads and engaged them in antifly campaigns, as above, and collected with their aid hogsheads of dead flies, etc.; while another colleague, Professor J. P. Porter, did much experimentation upon various forms of animal life, particularly spiders. This work throughout the country was greatly stimulated by *The Journal of Animal Behavior*.

I mention this interest and the work prompted by it because I have always felt it in a sense abortive. Much as I belabored these topics and copiously as I often illustrated them by charts and drawings in the class, I was never able to excite as much general interest on the part of the students as in other topics, and some at least of those who have done the best original work in this field—Yerkes, Thorndike, Watson, Haggerty, etc., have also, I think, been disappointed that they were not able to excite a deeper and more sustained interest or give to this subject the prominence in their requirements for degrees in psychology they desired or hoped for. Something of this disappointment, I know, has also been felt by those who strove to develop to the dimensions they deemed it deserved the topics of child study and even anthropology, which deals so largely with primitive man. I have often been baffled in surmising the reason for this and have concluded that it lies not entirely in the fact that these courses do not open

as tempting or certain a career to students as others but that it is also in part due to a vestige in the human, and especially the youthful, soul of the old conceit that the human and particularly the cultured adult had almost nothing in common with these more unevolved stages of psychic life, that they had been far and away transcended; and that, especially during the seasons of most rapid mental development, young people are more concerned with the future than with the past and with modern man rather than his forbears. At any rate, I have succeeded in developing far greater student interest along other lines to which I have given less labor. Despite this, however, it has always been one of my most cherished academic dreameries, which I never have expected and do not expect to see realized, that there should be somewhere a well-equipped, endowed, and facultized institute to be devoted entirely to animal behavior in the above broad sense, with a well-furnished library and abundant apparatus and collections of animals, which should be a central clearing house for all that has been done and a power house for new ventures in this field.

Sometime, too, the world will see an organization that will bring into useful and sympathetic rapport the standpoints of the experimenter and the field naturalist. I have been thought uncritical because I advise my students to read, along with the former, the works of Buckley, Lovell, Badenach, and even Maeterlinck, and because, in addition to Peckham, Lubbock, Romanes, Forel, Fabre, Espinas, Van Benaden, Palmen, Graber, Lucas, Wheeler, McCook, etc., I advised them to acquaint themselves with Wood's *Homes Without Hands,* Pfungst's studies of clever Hans, Cesaresco's light work on the psychology of the horse, Burroughs, Cornish, Morley, Robinson, Büchner on the love life of animals, the description

of the habits of pests in Comstock, Sanders, Flint, Hunter, Carpenter, and even Uncle Remus and the works on animal mythology, and have referred them to the old work of Pierquin on animal insanity. But if in following this course I have failed to distinguish sufficiently between popular and scientific work, it has been because I found that the former did help to generate interest, since I could assume less of this here than in any other field.

My dream includes a society for the advancement of the study of animal psychology which shall bring together workers of all these types, not excluding representatives of the best of the many Audubon societies the country over, so that each may get into more sympathetic rapport with the work of all the others. We have as yet no dictionary or encyclopedia of even animal life, much less of mind, for Brehm's ten ponderous tomes, although still useful, are hopelessly inadequate and behindhand. It has always been amazing to me to see how many very acute and special observations are scattered through popular and scientific magazines which fail to reach those who would be most interested in them and hence are ineffective and practically lost, so that although we have plenty of general and theoretic treatises on instinct they are, without exception, limited in range and highly *tendenziös* in character. The teacher of this subject, thus, has no good textbook to supplement or reënforce his lectures, and no one is impartial in the relative weight he lays upon the work of the field observer and the laboratory expert.[10] Craig has, how-

[10] To this work Clark has made the following contributions which I recall, the list of which is, however, by no means complete. Kinnaman's study of the reactions of monkeys to the puzzle box was one of the first in this field and was supplemented by a similar study, much later, by Davis on the coon, while Small published several studies on the white rat. Also under Dr. Sanford, Triplett published an interesting study of the perch. Dr. Hodge, who did more than any one else in the country to introduce interest in and study of ani-

ever, lately undertaken valuable résumés of current work in this field.

IV

I shall never cease to deem it a great good fortune that my early years were spent in the country on a farm, and that a mile or more away from the village so that there was much isolation and abundant exposure to all the influences of nature. Of all her incentives I think I was most responsive to cloud fancies. In their forms and colors I have seen all sorts of ships and argosies sailing on tinted seas, battle scenes, faces and forms of men and animals, corpses and funerals, processionals, festooned pageants, angels, and even God Himself. There are certain places where I often sat watching gorgeous sunsets, absorbed in reveries.

The thought of infinite space, too, often came over me with almost stunning violence as I tried to conceive how one could go on and on forever and find no limit in any direction, till I would almost grow dizzy and fear I might drift off and be lost in infinity. The moon was my nearest and dearest celestial companion and I sometimes caught myself, as a child, actually talking to it. I always imagined its markings to represent a woman sitting bowed as if in grief over a child at her feet. To trees, and particularly to the forest, I was exquisitely impressionable. As I entered it I

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mals in the schools and also to bring economic biology in line with laboratory experiments, made here his continued studies of alcoholic dogs, published his memoir on the toad, studied the vorticella with Aikin, the amœba with Dellinger and Gibbs, bees with Gates, and English sparrows brought up with canaries, with Conradi. Dr. Porter, who has made many experiments with various varieties of birds in the maze and with the puzzle box, studied the porcupine with Sackett and the dog with Conant, and has made many observations and studies on spiders, squirrels, and alligators and, as I write, has various unfinished studies. In this connection, too, should be mentioned the painstaking studies of children's reactions to the dog by Bucke and to the cat by Browne.

always became subdued and often walked almost on tiptoe, generally wanting and perhaps imagining a companion with me.

I was also very susceptible to the intimate rapport between trees and wind. The latter, which though unseen has such power and has always been a spiritual influence, giving in most etymologies its name to the soul itself, always strangely impressed me. As a child, and to this day, I have taken great delight in being out in a storm on land or sea, buffeted by it, facing and often trying to shout it down if I was alone. Although I was not an anemophobiac I always had the consciousness, especially when storms and gusts made the house shake, that it might increase in fury and sweep me and everything away; but this never became an obsession, as it did with at least two of my intimate friends, one of whom at my own age has never been able to overcome it. Before the open fireplace I saw pictures in the flames and glowing embers, although this type of fancy was far less developed than in many children I have later studied. To the impressions that come to boys from animal life I think I was unusually susceptible, and it has always since been a source of regret to me that I was never allowed to have a dog, man's closest, oldest and most universal animal companion. I was never much interested in flowers or gardens but left those to girls.

To snow in all its forms and to all human relations with it, the culture influence of which is now so well understood, I was abundantly exposed in every way. It sometimes drifted in upon our beds; it was a common "stunt" to take a run in it barefoot; there was endless shoveling, with forts, images, etc., and in sugaring season we had to wade through miles of it, now on crust that bore us and now slumping perhaps to the waist. We did everything with water, fluid and frozen, a generous stream of which flowed

near the house, and there were countless dams, little canals, sluices, water wheels, etc.

In each of my chief homes there was, very fortunately, a shop with a bench and a good many tools which I was always free to use as I would. These and the multifarious activities of the farm did much to make me motor-minded and perhaps even laid the basis for my rather strong voco-motor trend. One idiosyncrasy here that deserves mention is that I was from early boyhood very strongly inclined to act or dance out not only my impressions but even rhymes, and to hear music with my muscles. The nursery jingle, "Bean porridge hot" for example, meant three steps in each of three definite directions, and the last two words "days old" were marked by kicking up both feet in the air as high as possible and bringing them down successively, each to coincide with one of these words. A concert I am prone to interpret and illustrate by visual images of one or more people dancing and performing often utterly impossible evolutions, perhaps hovering in the air, but always in cadence to the conductor's baton. Eye-mindedness is with me a close second to motor-mindedness, while I am perhaps a little deficient in ear-mindedness. Thus I have always regarded my early passion and my later impressionableness for music as perhaps compensatory of native defect, and this may be connected with the fact that I am, as noted in Chapter III, unusually dolichocephalic, so that all my stiff hats have not only to be stretched but padded on the side.

As a student of childhood it has naturally always been a source of vain regret that no paidologist like Preyer, Miss Shinn, Harlow Gale, or Mrs. Nice, had been present to record the stages of my own development, which would have added so immeasurably to my self-knowledge. As it is, I shall never know which of the several methods of creeping I chiefly followed,

when I sat up and assumed the erect position, when I began to walk, how I teethed, the stages of my early development in speech, anything of my height or weight, or even how long I nursed, so that I have no idea whether there was any *ludeln* or *lutschen* which psychoanalysis makes the precursor of every kind of mental and physical erethism. My first quadrennium, which memory does so little to salvage and the supreme importance of which for the most fundamental traits of disposition Freudians have so convincingly shown us, is thus almost a blank to me. There were, too, of course, no Binet-Simon or other tests, so that I have no idea of the relations between my physiological and psychological age at any stage of life.

Probably I had a rather unique combination of what is now often called, from its extremest form, sadistic and masochistic trends. At any rate, as stated above, I had for a few years in the earliest teens an almost mortal fear, on the one hand, that my heart might stop any time and about the same time I was infected with the superstition that prevailed in the neighborhood that the world would suddenly come to an end. I have always had a certain though not acute dread of lightning, and at an early stage of life had a mild form of what is now called the castration complex, while more than once in the revivals which prevailed my imagination was realistic enough to make something of a fear fetish of hell. I think no one ever suspected any of these fears for I never told but, on the contrary, instinctively concealed them all. No dread was greater from the very dawn of adolescence on than that of inferiority and mediocrity, which most of the greatest efforts I ever made in life were to escape. On the other hand, I was a most execrable bully of my younger brother and sister, dominating them by threats and by force

to a degree that I now realize must have wrought injury to them. In school I was engaged in many fights and was, I fear, often cruel to those I could whip; for every boy knew exactly whom he could best and who could best him. I think I was somewhat formidable with my fists and in wrestling of the various kinds which were then in vogue, and I remember several occasions on which I attacked, sometimes to my grief and sometimes victoriously, older and bigger boys. I know that my parents thought me very self-willed, although I was always deemed good-tempered. I never coquetted with thoughts of death, so common to pubescents, and always abhorred kissing games and, at least up to the time of my Antioch professorate, never spontaneously kissed a girl but have always been called a boy's boy and a man's man.

This has sometimes been called, in the language of Ellen Key, the century of the child, and I have often been dubbed the father of child study. Both are false, especially the latter. True, the end of the last and the beginning of the present century were marked by a very wide and strong interest in child study, but this had shown signs of waning even before the war and since its outbreak very little has been done. The pioneers in child study in this country were H. P. Bowditch, who made his memorable contribution to the height and weight of Boston school children in 1879, which was closely followed by Porter's no less painstaking studies, while the work of Preyer antedated mine. Even the questionnaire method in the study of children, of which I have made great use since, originated with Prof. Lazarus,[11] who in 1872 studied the contents of the minds of children on entering the Berlin schools. It was from this study that I

[11] *Der Vorstellungskreis der Berliner Kinder beim Eintritt in die Schule in Berlin und seine Entwicklung.*

derived the idea of making a similar inventory of the contents of children's minds on entering school in Boston, published in 1883, although this differed quite materially in scope from the work of Lazarus. And it did furnish the incentive for a great deal of other work along similar lines for the next decade or two, during which this country led the world in this movement, until it was later taken up in a more specialized and systematic way by German *savants*.

For some years it promised to be, and I am sanguine enough to think it did to some extent become, a movement that deserves a place in the history of human culture. In the last decades of the nineteenth century this country was probably behind all others in the world, if not in history, in its interest in child nature and nurture. The home had abdicated more and more of its functions to the school, and parents were exceptionally absorbed in the struggle to get on. With urbanization home life had shriveled, city children were left to the street and, as various studies showed, they knew even almost no games. Not only were there hundreds of thousands of childless homes but school life and work were mechanical, and mass methods that ignored individuality and even child nature were everywhere prevalent. It sometimes seemed almost as if parents regarded the nascent stages of childhood as a necessary evil which must be accepted with what grace they could. Therefore, the gradual realization of what infancy and childhood really were, and the new appreciation of the fact that children's natures and needs should be normative and determine their treatment in both the home and the school, came almost like a new gospel, and in recent decades the country and the world have slowly but surely come to a new appreciation of the value of the *naïveté* and spontaneity of every juvenile stage and trait and recognized the pregnant if partial sense in

which every child, from the moment of conception to maturity, recapitulates, very rapidly at first and then more slowly, every stage of development through which the human race from its lowest animal beginnings has passed. It was something like these conceptions that animated all this work, and the history of it since 1880, if ever fully written, will at least make a fascinating chapter in the history of culture.

Seven states formed associations for child study, there was first a round table and then a department devoted to it in the N. E. A., and it found its way into various normal and collegiate courses. Dr. Chrisman, who has given us a text on the subject that entitles him to be called the American Ploss, gave it the name of paidology. Earl Barnes published two volumes of papers based upon a very extensive conspectus including many thousand children. Miss Shinn began the publication of her observations upon her niece, which were more accurate and extended than even those of Preyer. E. H. Russell was perhaps the very first to make this topic an integral part of the course in a state institution for the training of teachers, and his unique method, which furnished complete or partial data for a number of our memoirs, deserves brief mention. Printed blanks of different hues to designate, respectively, children's traits actually observed at first hand by his pupils, hearsay incidents, those read in books and those based on memories of their own childhood were supplied, and for a quarter of a century all students were requested to note and hand in anything they deemed interesting or important. These data were classified and, as soon as they had become sufficiently numerous, were made the sole basis of all the instruction in psychology. Upon his retirement from office he bequeathed to me more than 60,000 of these papers, which a group of our students here reclassified and which have often

been utilized in the educational work of my department. A sample of the use he desired to make of these data is seen in "Knowledge from the Standpoint of Association" *(Educ. Rev.,* 1898*)* by T. L. Bolton and E. M. Haskell, and in other papers.

In 1883 I published at my own expense an eighteen-page pamphlet, chiefly made up of topics which I thought might be profitably investigated, and in reading this over now it is surprising to me to see how many of them have since been made the subjects of published papers.

In my first paper on child study Mrs. Quincy Shaw, the generous patron for years of the Boston kindergarten, allowed four of the best members of her staff, whom I had selected, to spend months at the opening of the school year in questioning those who had just entered, generally in groups of two or three in the dressing room, on each of the *circa* one hundred points designated in my first printed questionnaire, trying to find out what conceptions of nature they had, including animals, plants, celestial phenomena, their own bodies, ideas of number, stories, games, things they could do, had seen about them, and their ideas in the field of religion. The results seemed almost to suggest a new science of ignorance and were extremely important for teachers as to what they could presuppose and how often all their instructions miscarried because of the width and depth of the chasm which yawned between the infantile and the adult mind.

"The Contents of Children's Minds" attracted more comment, was translated into more languages, and set the pattern for more similar studies than anything I have ever written.[12] A special edition of it was published by Kellogg in New York and had a wide

[12] See reproduction of it, with other papers, in my *Aspects of Child Life and Education* (Appleton).

sale. For the next ten years I was absorbed in laboratory work at the Hopkins and in organizing Clark University so that it was perhaps natural that I should again revert to this field when I resumed the full burden of teaching in 1893. Thus in October, 1894, I printed the first questionnaire from Clark on Anger, which in subsequent years was followed by many more, so that up to 1915, at least 194 on nearly as many different topics had been issued. The complete list of these, with the names of my coadjutors in this work, if any, is as follows:

TOPICAL SYLLABI[18]

1. Anger, October, 1894.
2. Dolls, November, 1894.
   Dolls (supplementary questionnaire), A. C. Ellis, June, 1896.
3. Crying and laughing, December, 1894.
4. Toys and playthings, December, 1894.
5. Folk-lore among children, January, 1895.
6. Early forms of vocal expression, January, 1895.
7. The early sense of self, January, 1895.
8. Fears in childhood and youth, February, 1895.
9. Some common traits and habits, February, 1895.
10. Some common automatisms, nerve signs, etc., March, 1895.
11. Feeling for objects of inanimate nature, March, 1898.
12. Feelings for objects of animate nature, April, 1895.
13. Children's appetites and foods, April, 1895.
14. Affection and its opposite states in children, April, 1795.
15. Moral and religious experiences, May, 1895.
16. Peculiar and exceptional children, E. W. Bohannon, October, 1895.
17. Moral defects and perversions, G. E. Dawson, October, 1895.
18. The beginnings of reading and writing. H. T. Lukens, October, 1895.

[18] All these were issued by myself when not otherwise specified, or with the student or assistant whose name is given.

19. Thoughts and feelings about old age, disease and death, C. A. Scott, November, 1895.
20. Moral education, N. P. Avery, November, 1895.
21. Studies of school reading matter, J. C. Shaw, November, 1895.
22. School statistics, T. R. Croswell, November, 1895.
23. Early musical manifestations, Florence Marsh, December, 1895.
24. Fancy, imagination, reverie, E. H. Lindley, December, 1895.
25. Tickling, fun, wit, humor, laughing, Arthur Allin, February, 1896.
26. Suggestion and imitation, M. H. Small, February, 1896.
27. Religious experience, E. D. Starbuck, February, 1896.
28. A study of the character of religious growth, E. D. Starbuck, February, 1896.
29. Kindergarten, Anna E. Bryan and Lucy Wheelock, March, 1896.
30. Habits, instincts, etc., in animals, R. R. Gurley, March, 1896.
31. Number and mathematics, D. E. Phillips, April, 1896.
32. The only child in a family, E. W. Bohannon, March, 1896.
33. Degrees of certainty and conviction in children, M. H. Small, October, 1896.
34. Sabbath and worship in general, J. P. Hylan, October, 1896.
35. Questions for the study of the essential feature of public worship, J. P. Hylan, October, 1896.
36. Migrations, tramps, truancy, running away, etc., vs. love of home, L. W. Kline, October, 1896.
37. Adolescence and its phenomena in body and mind, E. G. Lancaster, November, 1896.
38. Examinations and recitations, J. C. Shaw, November, 1896.
39. Stillness, solitude, restlessness, H. S. Curtis, November, 1896.
40. The psychology of health and disease, H. H. Goddard, December, 1896.
41. Spontaneously invented toys and amusements, T. R. Croswell, December, 1896.
42. Hymns and sacred music, T. R. Peede, December, 1896.
43. Puzzles and their psychology, E. H. Lindley, December, 1896.

44. The sermon, A. R. Scott, January, 1897.
45. Special traits as indices of character, and as mediating likes and dislikes, E. W. Bohannon, January, 1897.
46. Reverie and allied phenomena, E. Partridge, April, 1897.
47. The psychology of health and disease, H. H. Goddard, May, 1897.
48. Immortality, J. R. Street, September, 1897.
49. Psychology of ownership vs. loss, L. W. Kline, October, 1897.
50. Memory, F. W. Colegrove, October, 1897.
51. To mothers, F. W. Colegrove, December, 1897.
52. Humorous and cranky side in education, L. W. Kline, October, 1897.
53. The psychology of shorthand writing, J. O. Quantz, November, 1897.
54. The teaching instinct, D. E. Phillips, November, 1897.
55. Home and school punishments and penalties, C. H. Sears, November, 1897.
56. Straightness and uprightness of body, December, 1897.
57. Conventionality, A. Schinz, November, 1897.
58. Local voluntary association among teachers, H. D. Sheldon, December, 1897.
59. Motor education, E. W. Bohannon, December, 1897.
60. Heat and cold, December, 1897.
61. Training of teachers, W. G. Chambers, December, 1897.
62. Educational ideals, L. E. York, December, 1897.
63. Water psychoses, F. E. Bolton, February, 1898.
64. The institutional activities of children, H. D. Sheldon, February, 1898.
65. Obedience and obstinacy, Tilmon Jenkins, March, 1898.
66. The sense of honor among children, Robert Clark, March, 1897.
67. Children's collections, Abby C. Hale, October, 1898.
68. The organizations of American student life, H. D. Sheldon, November, 1898.
69. Mathematics in common schools, E. B. Bryan, February, 1899.
70. Mathematics in the early years, E. B. Bryan, February, 1899.
71. Unselfishness in children, W. S. Small, February, 1899.
72. Mental traits, C. W. Hetherington, April, 1899.
73. The fooling impulse in man and animals (conjuring and sleight of hand), Norman Triplett, March, 1899.
74. Confession, E. W. Runkle, March, 1899.

75. Pity, March, 1899.
76. Perception of rhythm by children, C. H. Sears, May, 1899.
77. The monthly period, Anna L. Brown, May, 1899,
78. Perception of rhythm, C. H. Sears, December, 1899.
79. Psychology of uncertainty and gambling, C. J. France, February, 1900.
80. Straightness and uprightness of body, A. W. Trettien, January, 1900.
81. Pedagogical pathology, Norman Triplett, November, 1900.
82. Religious development, G. H. Wright, January, 1901.
83. Geography, F. H. Saunders, February, 1901.
84. Feelings of adolescence, E. J. Swift, October, 1901.
85. Introspection, E. J. Swift, October, 1901.
86. Signs of nervousness, E. J. Swift, October, 1901.
87. Examinations, W. M. Pollard, November, 1901.
88. Sub-normal children and youth, A. R. T. Wylie, November, 1901.
89. English teaching, December, 1901.
90. Education of women, December, 1901.
91. Heredity, C. E. Browne, December, 1901; (a) January, 1902.
92. The conditions of primitive peoples and the methods employed to civilize and christianize them, J. E. W. Wallin, April, 1902.
93. Children's thoughts, reactions and feelings to animals, W. F. Bucke, November, 1902.
94. Reactions to light and darkness, November, 1902.
95. Children's interest in flowers, Alice Thayer, November, 1902.
96. Reactions to light and darkness (2) Theodate L. Smith, December, 1902.
97. Superstition among children, S. W. Stockard, December, 1902.
98. Ideas about the soul, L. D. Arnett, January, 1903.
99. Children's prayers, S. P. Hayes, January, 1903.
100. Religious experiences subsequent to conversion, E. P. St. John, January, 1903.
101. Food and appetite, Sanford Bell, January, 1903.
102. Development of the sentiment of affection, T. L. Smith, March, 1903.
103. The health of teachers, W. H. Burnham, April, 1903.
104. Moral and religious influence, Jean duBuy, May, 1903.

104. Curiosity and interest, T. L. Smith, May, 1903.
105. Birds and animals, October, 1903.
106. Precocity and tardiness of development, October, 1903.
107. Differences between young and old teachers, October, 1903.
108. Predominance of female teachers, October, 1903.
109. Dreams, October, 1903.
110. Advertising, October, 1903.
111. Stages of religious development, Jean duBuy, November, 1903.
112. Nervous children, T. Kuma, November, 1903.
113. Young people's Christian organizations, J. N. Rodeheaver, November, 1903.
114. The hygienic condition of normal schools, W. H. Burnham, December, 1903.
115. Japan: A study in the pedagogy of missions, F. A. Lombard, November, 1903.
116. The language interest in children, A. W. Trettien, December, 1903.
117. Attention, A. A. Cleveland, December, 1903.
118. Reaction of pupils to high school work, W. F. Book, January, 1904.
119. Questions for members of young people's societies, W. B. Forbush and J. N. Rodeheaver, February, 1904.
120. Crying, February, 1904.
121. Defects in school education, M. W. Meyerhardt, February, 1904.
122. Obstinacy, stubbornness and obedience, February, 1904.
123. Stuttering and other speech defects, E. Conradi, March, 1904.
124. Keeping well, March, 1904.
125. The subnormal or supernormal child, T. Kuma, May, 1904.
126. Motherhood, November, 1904.
127. Psychic reactions to sound, T. L. Smith, November, 1904.
128. The development of the imagination, H. L. Brittain, January, 1905.
129. The psychology of clothes, February, 1905.
130. Peculiarly nervous children, B. C. Downing, October, 1905.
131. Nervous children, B. C. Downing, October, 1905.
132. Envy and jealousy, A. L. Gesell, October, 1905.
133. Topics needing study on children of kindergarten age, T. L. Smith, October, 1905.

134. The minister and his work, D. S. Hill, October, 1905.
135. Emotional reactions to the moon, T. Misawa, January, 1906.
136. The play interest of children, F. A. Judson, February, 1906.
137. The early development of æsthetic interest, J. W. Harris, February, 1906.
138. Fatherhood, R. N. Roark, February, 1906.
139. Chess, A. A. Cleveland, 1906.
140. Adult education, T. Misawa, November, 1906.
141. Spontaneous constructions and primitive activities in children analogous to those of primitive man, February, 1907.
142. A syllabus for the study of "shock," W. L. Gard, March, 1907.
143. Interest in philosophical and psychological subjects, E. I. Keller, October, 1907.
144. Co-education, C. Reddie, November, 1907.
145. The prophet of to-day, I. L. Willcox, November, 1907.
146. The "social study" of the Negroes of the City of Worcester, G. T. Dominis, November, 1907.
147. Sex differences in children of grammar and high school grades, December, 1907.
148. Juvenile courts, W. G. Siddell, January, 1908.
149. Psychology of shame, T. L. Smith, February, 1908.
150. Drama in education, E. W. Curtis, February, 1908.
151. The relations of mental and bodily factors in disease, C. A. Osborne, October, 1908.
152. Special defects, A. Wiggam, November, 1908.
153. Dancing, L. G. Barber, November, 1908.
154. Psychology of suicide, Y. Nakamura, November, 1908.
155. Ambition, H. M. Downey, January, 1909.
156. Teaching of religion, E. S. Conklin, January, 1909.
157. Some characteristics and tendencies of school children in the grades, Mrs. Eben Mumford, February, 1909.
158. High school physics, H. W. Chase, March, 1909.
159. Children and language, Genevieve Boland, October, 1909.
160. A phase of adolescent development in girls, Lucetta Crum, October, 1909.
161. Justice, November, 1909.
162. Length of daily school session, P. K. Holmes, December, 1909.
163. Literature in the grades, J. M. McIndoo, December, 1909.

164. The psychological effect of music, H. P. Weld, December, 1909.
165. School supervision, B. Roethlein, January, 1910.
166. Teaching of mathematics, F. B. Williams, January, 1910.
167. The belief in immortality, S. Spidle, October, 1910.
168. Keeping well, E. Anastassoff, October, 1910.
169. School superintendents, M. E. Wood, January, 1911.
170. Suggestion and imitation, S. Yamada, February, 1911.
171. Medical inspection, G. H. Shafer, February, 1911.
172. A study of joy, sorrow, and qualms of conscience, G. D. Bivin, July, 1911.
173. Justice, T. Ueda, September, 1911.
174. The training of teachers in the United States: *Critic Teachers, School Superintendents, Principals and Directors of Training Schools, Departments in Colleges and Universities,* L. W. Sacket, November, 1911.
175. Toys and playthings, Dorothy Drake, November, 1911.
176. Psychology of adolescence in girls, Miriam Van Waters, November, 1911.
177. Emotions in children and adolescents, F. E. Howard, November, 1911.
178. Study in child mind, W. T. Sanger, October, 1912.
179. Children's ideas of death, J. H. O., October, 1912.
180. Food and drink experiences, H. F., November, 1912.
181. Study in dreams, Raymond Bellamy, November, 1912.
182. Toys, G. E. Freeland, December, 1912.
183. Anger and fear, R. F. Richardson, January, 1913.
184. The psychology of the story, E. C. Wilson, November, 1913.
185. The model school in education in the United States, J. H. Purnell, December, 1913.
186. The present status of the small college, F. M. McDowell, December, 1913.
187. Public opinion and the teaching profession, G. A. Coe, March, 1914.
188. How to teach the war, C. E. McCorkle, October, 1914.
189. Dreams, Vance Randolph, November, 1914.
190. Influence of politics in school affairs, R. N. Elliott, November, 1914.
191. The junior high school, A. A. Douglass, November, 1914.
192. The relation of the school and home, E. W. Moore, December, 1914.
193. The psychology of industrial efficiency, S. K. Boyajian, February, 1915.

194. The pedagogy of mathematics, A. O. Griggs, February, 1915.

From the above list it appears that the years 1895–97 inclusive were most prolific and that the number of questionnaires issued in general diminished thereafter. Although many, especially in later years, were addressed to adults or officials or pertained to school methods and organization, etc., the great majority were to obtain data for the collective study of children. A few brought only scanty returns, a few more on which there were copious data were never worked up, and others were only to obtain supplementary data to make studies by other methods more complete. Most of them, however, were not only numerously answered but resulted in scores of papers, longer or shorter, of which many are to be found in the pages of the *Pedagogical Seminary*. Answers received were often very widely scattered; sometimes we had data from England, Canada, South Africa, and occasionally from Germany, India, Australia, China, and Japan. Certain educational institutions were always glad to collect the data we wanted from their students and instructors. Former pupils and others in academic work contributed, and at one time we had a list of nearly fifty who had volunteered to procure data under our direction. These syllabi were often made the theme of instruction and we were not infrequently called on to furnish copies by the score for class purposes. Thus many people in very different positions and various parts of the country coöperated.

To instance the method of one of our most valued contributors I mention that of Miss Lillie A. Williams of the Trenton Normal School who in the *Pedagogical Seminary* (v. 3, no. 2) describes her method of collecting data for studies in genetic psychology. She first read and explained to her students each item

in the syllabus, pointing out that their coöperation might bring valuable results and trying to make all feel that they should contribute their mite and be co-laborers. In the paper on fears, for example, she gave a preliminary talk on the general subject and our lack of knowledge of it, how common and injurious fears were in childhood, and then instituted some general conversation on special fears—wind, snakes, lightning, cloud-forms, etc. Some would then confess their own childish experiences and this often was an open sesame. In this way it was sought to stimulate interest and awaken memory, and then each who desired to do so was invited to write out a rather full but very honest record of his own personal experiences with fear, following the rubrics of the questionnaire. Subjects of a different nature and those which required not memory but observation received, of course, different introductory treatment. The necessity of being definite and absolutely honest was always stressed. The questionnaire was often mimeographed or written on the board. Age, sex, and race were always to be specified as definitely as possible for each experience. No one was required to sign his or her paper although often by general consent the results were read in class so that each might benefit by the experience of all the others. The practical value of knowing more about child life for teachers and parents was always stressed, and it is notable that, on the whole, most of the best data were furnished by women.

In such ways vast bodies of data were accumulated and sent to us in response to some of the more popular questionnaires, and it was a very perplexing question how to make the net resultant of it all into anything like a composite photograph of the subject, point by point. Sometimes the collaborator relied too much upon statistical treatment, as illustrated perhaps

in Ellis's study of dolls. Sometimes too much stress was given to epitomizing individual experiences, which were selected and perhaps given briefly in great numbers as samples, as I perhaps was most prone to do. Occasionally we found vital subjects on which there was really very little helpful literature, as in the case of anger. In other studies we occasionally worked up large bodies of such data only to find that they shed but relatively little new light. But in nearly all the topics, especially in those that pertained exclusively to childhood, we found a palpitating human interest and this was focused and intensified by striking concrete illustrations, although there was always the danger of deeming exaggerated forms of common experience, which for that reason had more zest, to be more typical of average childish experiences than they really were. These studies also brought out very clearly the fact that while there were many of the inner phases of child life that are very common, a great number of these are totally forgotten in adult years, even by those who had intense experiences of them, mothers, for example, testifying to prolonged fears in their adolescent daughters which the latter denied ever having had. But, on the other hand, these records brought home the realization that the experience of any single child is very limited, that there are vast ranges of experience always untouched even in the fullest life, and that most of them are represented only by vestiges of nascent states.

Of course studies of this sort have their very grave defects of method. We always strove to recognize that they were only preliminary or first stages, that their chief value lay in their suggestiveness, and that little finality should be claimed for our conclusions save in those cases involving physical measurements. We had abundant occasion, too, to realize that very often a little experience in this study opened the eyes

of parents and teachers to the nature and needs of childhood in an almost revolutionary way. There were, of course, many critics. Professor Münsterberg repeatedly declared that he would love his children but never study them, as if the two were inversely related while we believed we had overwhelming evidence that to know a child better is to love it more. Anthropology has recognized its vast debt to the nonexpert observer who has first-hand contact with the facts desired, and has always made great use of the questionnaire. Even Darwin gathered a very large part of his data by a modified questionnaire method through his very wide correspondence with observers, skilled and unskilled, in all parts of the world on the great variety of topics he treated.

The movement of child study was, however, by no means limited to questionnaire methods of collecting individual memories of one's own childhood or to the study of children collectively. To understand the full scope of genetic paidology we may here refer to the annual bibliography printed at Clark by L. N. Wilson from 1898 to 1911, each year containing from three or four hundred at first to nineteen hundred titles in 1910, 1911, with an index by subject always appended. At first our library strove to procure all these papers but their number soon transcended the resources we desired to devote to this subject, although our collection, supplemented by my own, is, at least for the earlier years of the movement, fuller than any I know.

Articles on various phases of the subject and of all degrees of merit found their way not only into the periodical but the daily press, and very many who had no qualifications took it up as a fad and brought reproach and sometimes ridicule upon it.

Meanwhile more than a dozen state and scores of local organizations were formed to advance the work,

and of the early story of these S. E. Wiltse, secretary of the national society, has given us the most comprehensive reports.[14] *The Northwestern Journal of Education and Monthly,* beginning 1897, became the organ of this work for a group of states, and the Illinois Society for Child Study published several volumes of transactions. Many mothers' clubs were formed and women's clubs took up the theme, and The Mothers' Congress and various parent and teacher associations endeavored to advance certain phases of it. Many of our large public libraries, led perhaps by the Carnegie Library of Pittsburgh, opened children's rooms and made a speciality of collecting literature for them, the Carnegie Library in 1909 having 2,500 books for children.

My very able assistant, Dr. Theodate L. Smith, undertook to gather data for a handbook of all child study and child welfare institutions the world over with a view to the eventual preparation of an encyclopedia on this subject. For years she conducted a voluminous correspondence, carefully arranged in many hundreds of large envelopes, making as her final classification some 80 different types of agency devoted to more knowledge or better care of children, normal and otherwise, including Dr. Forbush's *Knights of King Arthur,* the boy scouts, big brother and sister movements, juvenile courts, lying-in hospitals, reformatories, institutions for deviates of various kinds, dependents and delinquents, hygienic, moral, and religious agencies including the Sunday school and ethical culture; protective associations, humane societies, child labor, prevention of crime, cruelty, and vice; children's libraries and theaters, camps, story telling, school nurses, surveys, savings,

[14] "Preliminary Sketch of the History of Child Study in America," *Ped. Sem.,* Vol. 3, No. 2, a report that was continued for the year ending September, 1896 in Vol. 4, No. 2 of the same journal.

psychological clinics, organizations for child study, etc.,[15] and she herself, before her premature death, had begun to write brief sketches of the origin and purport of these institutions, one by one, a project later very materially advanced by several years of work and publication on the subject by W. L. Dealey.

Our goal, however, of a compend of all this work fell far short of attainment, although had Dr. Smith lived I have no doubt that it would have been reached. As it is, however, I have to confess to some degree of failure and waste here, for no one could be secured with the means at our disposal to keep the correspondence up to date and edit the results in the form of a handbook which would show to workers for children in each field what those in others were doing.

Like the observational, so, too, the reminiscent data in this field have, along with great advantages, certain grave defects. Stern, Colgrove, and a score of others have shown how liable the earliest memories of childhood are to be corrupted by hearsay, imagination, etc., and of all the two hundred and sixty autobiographies included in the list Mrs. A. R. Burr studied, not two dozen contribute facts of much value about the earlier stages of life, although perhaps the majority of them are pervaded with a sense of its importance. Life, in a way, does take a new turn at puberty, too, and not only the feeling-tones but most experiences that precede it tend to fade because the real life of the individual begins when the burgeoning of sex links him up with the race. Sketches by well-known writers like F. H. Burnett, Pierre Loti, C. D. Warner, T. B. Aldrich, A. D. White, merely amplify the flotsam and jetsam of prepubertal memory for literary effectiveness and are of far less value than works that are more confessional, like Bashkirtseff,

[15] See her "Correspondence Department of the Children's Institute," *Ped. Sem.*, 17:176.

Miss Hunt's "Una Mary," and the interesting affectations of Mary MacLane, etc. Writers like Rousseau, Tolstoi, George Sand and above all others, Goethe, touch a yet richer vein, while many of the intimate journals of religious experience are nearly always prone to lapse to conventionality and those describing youthful philosophical calentures are usually only the precocious foregleams of what was meant for normal old age.

The point here, however, is that any and every honest effort to conserve and restore any important traits or events of our early life helps us on toward the self-knowledge which is the goal of the noetic impulse and which nowadays culminates in the psychoanalysis which many normal men of culture are seeking, with the aid of experts, and which should be, and seems now to give promise of becoming, an essential part of the preparation of life for every youth before he fully enters upon his career. Every diary spontaneously kept (of which Mrs. Forbes has published a list of many hundred in New England alone), the now well-understood eagerness of every ephebic soul to know how it measures up with others in every line of excellence, and the general dread of inferiority are common outcrops of the self-same impulse that perhaps has its culmination in the autobiographic instinct. To challenge the validity of such data honestly meant is to impugn both memory and testimony. Indeed, writing out juvenile events is not only often a very effective method of psychotherapy but there have been minds that have found themselves by this means alone and avoided wreckage.

Not a few of the records of intelligent mothers which have come to us, whether they followed one or more of the many schedules which a decade or two ago were so abundantly supplied to them or simply noted points they deemed in any way significant, may

have real scientific value, although most of these are important only for the parties concerned. Between one and two score American mothers have had the patience to note down with great fidelity the speech developments of their offspring, so that we now have dozens of vocabularies of children up to the end of the second and sometimes even the third year, and very occasionally the later years in life. A study of these shows undoubted traces of the very impulse from which speech arose, sometimes very strong indeed, as in the case of Stumpf's child, and I have compiled a list of real "words" as truly the original creation of the child's mind, and not its clumsy effort to imitate, as anything that Lear or Carroll ever devised.

Again, the studies of children's spontaneous drawings, since Lukens really opened this field, have shown remarkable similarities between the development of the race and the child, with a hardly less marked node between the stage of drawing a memory image and copying from the object than that which Verworn has pointed out in cave drawings (his ideoplastic, which he thinks preceded the physioplastic stage) and work along these lines has more or less reconstructed our teaching here. Play, too, which is now understood not so much as practicing for adult activities as Groos thought, but as recapitulatory of the whole life of the race, is seen to have many elements common to animals and savages; while Johnson has drawn up a curriculum of scores of plays according to their educational values (and thinks that every topic in the first few years of school could and should be taught play-wise), and Gulick and especially Curtis, by his indefatigable activities throughout the country and by his books, inaugurated a nationwide playground movement.

The art of story telling, too, is now recognized

as a vestige of what before writing was the sole method of transmitting knowledge from one generation to another, and we have not only a precious library of the great epics and traditions of the race simplified for children but the Story-Tellers League has made us realize as never before that oral narration has a charm and an appeal greater than the page can supply and enables a master of the art to weave more characters and incidents into a unity, fusing them all in a climax, in a way that must have greater synthetic value for the child's mind than any other and should precede all other systematization of the items of knowledge.

Again, we understand in a new way the value of all kinds of associations of children with others—not only the disadvantages of being an only child but the necessity of giving early play to the group instinct, all the way from the spontaneous gang to the scores of juvenile organizations, so that those who had given attention to this subject found nothing new in Trotter's insistence that the instincts of the herd were quite as primal and all-dominating as those of the ego; while Sheldon pointed out the close similarity between college and other secret fraternities and those of primitives.

Another line in which the new interest in childhood has developed at the same time a deeper knowledge and performed a great service to the rising generation is in the early recognition of pathological traits before they become ostensive enough to attract special attention. We know as never before the dangers of excessive automatisms, of the early outcrops of imperative ideas, the prelusions of hysteria, and the passion for deceit often so strong in pubescent girls, as is notably seen in histories of spiritism and so-called telepathy. We understand now that autoerotism is a stage through which all pass and we can

minimize the dangers of arrest in narcissism, while the studies instituted by the juvenile court have gone much beyond Lombroso in teaching us the embryology of both vice and crime. New light has been shed, too, upon even slight defects of hearing, sight, speech; the significance of faulty adenoids, teeth, postures; wrong habits of eating and sleeping; the evils of sex precocity and of child labor; and we have made great progress in developing a really scientific hygiene of the body, intellect, will, and feelings. We can also discriminate to a degree between the different stages of child development from infancy on, and some progress has been made in tabulating the age of certain nascent periods in which nature gives, perhaps once only in life and never again, a signal impulse for development in certain directions. We realize as never before the dangers of repression and the necessity of developing each power in its season as a condition for the unfoldment of the next higher power, which may have to check or sublimate it.[16]

One special phase of child study impelled mainly by Binet and Simon but signally developed in this country by Goddard and his associates at Vineland, still further specialized and utilized in the army and now giving promise of a phenomenal development in industry and education, is testing. Not only in the National Association of Corporation Schools but everywhere abilities are being tested, especially in young people, for various industrial specializations. A more important prelude to this work which should be mentioned is that of Puffer, who studied the boy and tried to find the calling to fit him, and also the

[16] See Mrs. Elida Evans, *The Problem of the Nervous Child*, N. Y., Dodd, Mead & Co., 1920, 298 pp.; Phyllis Blanchard, *The Adolescent Girl*, N. Y., Moffat, Yard, 1920, 242 pp.; H. Crichton Miller, *The New Psychology and the Teacher*, N. Y., Seltzer, 1922, 225 pp. (the only serious attempt to date to draw the lessons of psychoanalysis for teachers).

work of Meyer Bloomfield, who for years studied the qualities that various industries demanded and strove, conversely, to fit the boy to the job. Mention should also be made of the important spelling, writing, arithmetic, and other scales to test the efficiency of schools and pupils comparatively, while now we have innumerable tests of intelligence, some of which are even used as a part of college entrance examinations. The ideal of having every one placed where he can utilize all his best powers is the point at which democracy and economy in industry come to a focus.

Thus child study, which began on the broadest possible basis, attempting to be first mainly extensive and neglecting almost no human trait, has immensely increased in accuracy, method, and definiteness of result but has at the same time greatly narrowed its field. It is in the great stress now laid upon these tests, too, that psychology in general has enormously increased its utility, but not without grave danger of lapsing from culture (the chief impulse at first which made the movement predominantly humanistic) to *Kultur,* since the later methods seek practical results with individuals and have added little to our knowledge of child nature in general. In this latter direction, however, Clark University has made it a point for the last decade or more to have some competent authority to apply tests *gratis* to all children from the city sent or brought to it, and in recent years Dr. L. R. Geissler gave his entire time to making such tests and instructing others to do so here, and we founded here the *Journal of Applied Psychology,* an organ for the development of this work which, as I write, is in its sixth volume.

Of child study in its original broader sense we have no adequate compend, although Baldwin, Ellen Key, Jacobi, Wallin, Forbush, Compayré, Groos, Rich-

mond, Oppenheim, Sergi, Wagner's *Youth,* O'Shea, Kirkpatrick, Drummond, Taylor, Partridge, McKeever, F. Warner, Mateer, W. A. White, Lay, Grahame, Sandiford and, in some respects most symmetrically of all, Dr. A. E. Tanner in *The Child,* and more recently Hug-Hellmuth, Rasmusin, W. Stern, Luckey, Chamberlain, Healey, etc., have sought to bring together more or less of the general results of large parts of this work. In my own two volumes on *Adolescence* (1904) I sought to epitomize comprehensively and to draw inferences from what had been done for this period of life, and in my *Educational Problems* (1911) I attempted to apply some of the lessons in this field to pedagogy. What we need and lack here, however, is a comprehensive synthetic work coördinating all the best of the new insights in regard to each stage of human development and drawing conclusions for a child nurture that shall better fit its nature. Until this is done topic by topic a very large part of the data actually gathered will remain scattered and ineffective because unknown, even to experts.

Not only in 1909, as described in the preceding chapter, but again in 1910 we held at Clark University a conference for child research and welfare lasting several days at which forty-eight addresses were given, many of which were followed by interesting discussions. This was attended and participated in by representatives of nearly two score child welfare organizations. During this latter meeting a national child conference was organized, with a constitution and officers, of which I was made president and H. S. Curtis, secretary. We desired that the new bureau at Washington should be directed not only to better conditions of child labor throughout the country (in the interests of which it had been founded) but should also be made the organic center

of all child-study activities and should make it one of its chief functions to bring together workers in all fields, representatives of each of which, as there was abundant evidence to prove, often knew very little of the work of others, and so pool both knowledge and interest. The organization we here effected, however, made little appeal to those intent chiefly on the immediate, practical work of mitigating abuses and ameliorating the conditions of childhood, so that research and welfare again showed their incompatibility and it was realized that the latter had little interest in the former, and the two drifted apart. Hence this organization proved to be ineffective and soon lapsed.

Following these conferences, however, we attempted to organize a Children's Institute at the University as follows.[17]

The departments were: (1) a collection of literature, including the hundreds of educational bills passed in this country every year; (2) natality, birth and death rates, under Mr. DeBusk; (3) hygiene under Dr. Burnham; (4) subnormal children, under Dr. H. W. Chase; (5) crime; (6) vice; (7) child linguistics, under Dr. J. A. Magni; (8) anthropological and sociological; (9) experimental didactics, under Dr. Tanner; (10) child labor; (11) moral and religious training; (12) pedagogical museum. Thus, six of the above departments were partially organized and the head of each presented a report of the work done. Our effort was, as above stated, to bring child philanthropy and field workers into contact with scientific paidology. In addition to this, an investigation of local conditions in Worcester was carried on by a group of our advanced students

[17] See my outline (*Ped. Sem.*, June, 1910, 17:160) which is followed by the reports of seven departments and an account of the local surveys undertaken here.

—A. H. N. Baron, delinquency; B. A. Lanphear, the Italian population; Mr. Griggs and Mr. Dominis, the Negroes; F. N. Cooke, causes of poverty; E. Curtis, local theaters; Mr. Roche, the park system; L. Ellison, motherhood, illegitimacy, midwives, etc.; Miss Cochran, the milk and later the egg conditions in the city; Mr. Acher, sex conditions; Dr. Carrigan, juvenile crime; Dr. Karlson, condition of Swedish children; Dr. O'Connor, public and social hygiene; Mr. Stoutemyer and Mr. Sackett, the Salvation Army; Miss M. B. Downey, schoolyards; Mr. Cooley, activities of Protestant churches for children; Dr. Baff, the social evil; Miss Curtis, holidays, evenings, and Sundays; Mr. Cashen, activities of Catholic churches for child welfare; Miss Crum, vicious adolescent girls. To help along this latter work a large committee of representative citizens, "The Worcester Conference for Child Welfare," was organized, which met for a few years, to each member of which was given the supervision of some definite line of work. We also secured the services of Paul Kellogg, who had conducted the Pittsburgh survey, while Miss F. Lattimore, also of the Sage Foundation, made us repeated visits to aid the above and other workers with her expert counsel and experience.

We found no less than one hundred and fifty fraternal organizations in the city, some of which made some provision for children, at least orphans, and we sought to devise ways by which the great advantages that had everywhere been gained by the association of local charities could be extended. The results of the above studies were reported on by each for the benefit of all the others and for whomever else was interested.

By a generous annual grant of the board we were able to develop in subsequent years a pedagogical museum, the utility of which had been abundantly

illustrated in several European centers, particularly in the vast collections at Paris. We collected thousands of objects designed to facilitate the work of education. A few were contributed by their manufacturers but most were purchased, chiefly from continental Europe. This collection brought home to us the sad fact that this country is relatively far behind in nearly all such devices, even Argentine making very great and effective use of them. The catalogue of the contents of our museum has, as I write, been begun by Dr. W. H. Burnham, who printed a list of objects useful in the field of school hygiene. But this is only a small part of our collection, which comprises colored wall charts illustrating and vivifying fairy tales and legends, some to facilitate the teaching of the vernacular in other languages by appeals to the eye, historical charts, illustrations of chemical laws and industries, various phonic systems, forms of insect and lower and higher animal life, the products of children's spontaneous industrial activities, the various methods of industrial education, principles of physics, aids in teaching number, geometry, astronomy, music, languages (for example, the graphophone), stereoscopic views of Egypt, Greece, the Orient, etc., many geographic charts, models, orreries, puzzles, toy trains that go by steam, airplanes, illustrations of ballistics, models of many kinds, and finally a library of textbooks. These and their use were illustrated in Saturday lectures open to teachers. There were open days for children, with demonstrations, and nearly all this apparatus was loaned to teachers as are books from a library. The economy of a judicious use of such material in the work of education is incalculable, and the few teachers who have really made use of it have not failed in their enthusiastic appreciation of it.

We also, since 1909, have had some expert here

who tested gratuitously all children from the city or elsewhere who are suspected of any form of abnormality, and some of these have been carefully studied individually. Dr. A. E. Tanner for some years gave a Saturday course on child study and its methods and results in general in much more detail than in her book, and I undertook to demonstrate in other Saturday courses how to use the material in the museum.

Thus in 1909 and 1910, after many years of endeavor in the field of child study, we strove to give this work a comprehensive organization and went to the very limit of our resources and launched the plan of our Institute, which we were able only in part to realize. But in announcing the full scheme of this with such abandon we had been influenced by strong and, as we thought, well-founded hopes of very material financial support from outside. We had appealed to two of the great benefactions within the scope of which our work seemed to lie and to several very wealthy people, all of whom had expressed interest from which, as the sequel showed, we hoped too much, for their kindness toward us proved to be of the unremitting kind, so that slowly we began to realize that we had been too sanguine in our expectations. The graduate students and annual appointees who had made such brave beginnings, as above, found larger fields elsewhere and we were not able, with our resources, to fill their places adequately. Perhaps their very ability and enthusiasm had contributed to raise our hopes too high. Thus the years that followed were those of hope deferred, and again it was found that we had planned more than we could accomplish. Perhaps we had not sufficiently realized that all beginnings are easy and difficulties often increase in geometrical ratio, at least for a time, in all such new departures. But if hopes in one direc-

tion were shattered, relief and compensation, partial if not complete, were found in another—the new insights and interests in early childhood which the world owes to psychoanalysis.

Again, as in the early days of the University, I had seen a vision and again, although in a less tragic or sudden way, I saw it fade. It had done much to sustain my courage during the closing years of the last century which were institutionally so dark, and I had even coquetted with the idea that if at Mr. Clark's death we received nothing more it might possibly seem wise to slowly change the character of the university and devote all its funds ultimately to the cult of the child. This never came to be a serious plan and I think was never communicated to any one, but as a defense mechanism it did give me personally a sense of refuge as a possible last resort. As, however, all hopes of realizing ideals in this direction failed, I can now see that I passed through something of a crisis, though without realizing it at the time, and that my interests slowly took a new tack. In 1904, when I printed my two volumes on adolescence, that subject became thereafter more or less of a closed one to me. As usual, having printed, I never read it again and avoided the subject in my courses of instruction, and in 1911 I closed my account with child study as applied to education by publishing my two volumes, *Educational Problems* and thereafter ceased to lecture upon education. The same year I turned over to another instructor the history of philosophy, which I had always taught, but after having a final and more elaborated course typed I printed of this material only my lectures on six contemporary leaders with whom I had come in personal contact in *Founders of Modern Psychology,* and elsewhere my treatment of Kant and Berkeley. (See bibliography.) In 1914 I published under the title *Aspects*

of Child Life and Education a few of our sample monographs upon this subject and ceased to lecture upon childhood.

I had for so many years studied the Greek philosophers that I felt I had a new standpoint and mode of approach and sufficient original interpretations to justify publication, and so sought and found a professor of Greek who began the final revision of this material under my direction but was later diverted into other fields, so that here I had to register another if less serious disappointment and failure, although my last course of lectures in this field was taken down in shorthand and typewritten.

V

I had long been predisposed to certain special interests in sex psychology besides those which every human being has had since man became man. The reasons for the latter, which also make perversions so easy, are to be found in the erect position, which brings these functions and organs within the range of attention and revolutionizes the mode of approach; in the development of the manual function itself, which makes self-abuse possible; in primitive modes of life, dressing and undressing, in certain conditions that perhaps first arose in the glacial era and the consequent extension of the rutting season to all parts of the year, etc. Thus the so-called fall of man was indiscerptibly bound up with the use of these functions in excess of the needs of procreation. Again, early culture history has a phallic vein which has pervaded all religions and made not a few of them gross to a degree which it is almost impossible for us to realize, especially since so many of these tendencies have been repressed or sublimated. A large body of mythology, too, admits of a phallic or erotic

quite as much as of an astral explanation so that views like those of Max Müller and Cox are as liable to be carried to excess as those of Jung, Rank, and others now competing with them and asserted to be more primitive.

Moreover, it is now nearly twenty years since the subject of teaching sex to young people began to be seriously broached, and on this subject the mind tends to lose its poise and become dogmatic and fall a prey to extreme views, which are always easiest. Perhaps my prepubescent observations in one of the schools I attended had opened my eyes to the possibilities of precocious evil in this field, which my work and reading in connection with the New England Watch and Ward Society, of which I was at one time president, had greatly deepened. For some years I was inclined to respond to the many invitations to address not only teachers but high school and even college students upon this subject, once venturing upon a weekly course at Clark, in 1904, which I abandoned before its completion for two reasons, first, because it was difficult to exclude those I deemed unfit since too many outsiders got in and even listened surreptitiously at the door, and second, because two or three of my students developed an interest in the subject that I deemed hardly less than morbid. It is, of course, impossible to treat such a theme scientifically without at least some plain speaking upon perversions as represented by Tarnowski, Krafft-Ebbing, Havelock Ellis, etc., and this I found it most unexpectedly hard to do although all women were excluded.

I early reached the conviction that from the standpoint of sex hygiene and pedagogy the key to the whole situation was that young people must have excitement, must tingle and glow, must become mentally erethic to develop the higher powers of man; and that everything that generated real intellectual

interest set a backfire to temptation here, while mechanical and lifeless modes and matter in teaching directly predisposed young people to find the excitement their whole nature craved and needed in forbidden ways. I also realized that mass instruction in these subjects specifically was prone to do more harm than good and also that on this theme as on no other the slightest hints were both understood and indelibly remembered so that a radically different method of treatment from that used in other domains was necessary if this topic was to be given any special place in the curriculum rather than being taught incidentally in connection with botany, which seemed better fitted as the open sesame to this field for girls, as natural history and physiology are for boys, for the apperception organs of the sexes here seem to have more or less characteristic differences.

Thus in this period I fear I had my very worst pedagogic experience before attaining this general insight and that I did harm while attempting only to do good. The many students and auditors of both sexes who afterward privately and perhaps by letter set forth to me their own problems and revealed their own experiences showed me how profound and universal were worries in this field and also how secret, all-pervasive, and often incessant were the dangers to which young people were exposed. Certain investigators brought to light practices not only in reformatories and prisons but in schools and colleges, to say nothing of the many revelations of the social evil and the medical studies and statistics of venereal diseases, that still further revealed the magnitude of the evil and our ignorance of how to cope with it. Such reports and even this theme in general were long under taboo in the American press, which admitted only specific scandals, until by a consensus some years ago the ban was more or less lifted. Up to and even

during the great war psychological orthodoxy, especially in this country and England, almost entirely ignored this subject, and in our journals and on the programmes of our meetings it was rarely touched. Nor had it received much more attention in child study circles.

Thus the advent of Freudianism marked the greatest epoch in the history of our science. Not only did it bring the element of feeling, which had received comparatively little attention from scientific psychologists, into the very foreground of attention but it made it the prime determinant of human development. If the Freudian claims of the all-dominance of sex were excessive, as they certainly seem to me to be, it was only a natural reaction to the long taboo and prudery that would not look facts in the face. If the gross and morbid phenomena here were taken as the point of departure, made the norm and gave the nomenclature, the conclusions here drawn were from a solid and wide basis of clinical facts which no one could dispute, however much they might criticize methods and interpretations. But there was always the most insidious danger of inferring from the morbid to the normal.

The dicta that all dreams are wish-fulfillments and protectors of sleep, that the unconscious is the childish and *vice versa,* the insight into the nature of mental imagery afforded by the new interpretation of symbolism, the conception that childhood is polymorphically perverse, the interpretation of even infantile phenomena never before explained as prelusions of sexuality before it became evolved and its elements constellated, the fundamental significance ascribed to the first four years of childhood, the extremely wide interpretation given to sadism and masochism as types of activity and passivity, the conception of hysteria as a flight from reality, the

enormous rôle ascribed to repressed concepts, to conflicts, and to the unconscious generally; the slow widening of the genetic theories of causation of mental and nervous disorders, not only to early infancy but to the prenatal period and at last by the Zurich school to phyletic history; and perhaps most important of all, the gradual extension of Freudian views into the domain of biography, history, literature, religion, hygiene, sociology, and art, so that the activities they inspired outside of the medical field came to be even greater in volume and importance than those within it—all this made it so genetic and vital that it came to me to seem almost like a new dispensation in the domain of psychology, so that from 1910, when Freud visited us, it and its wider implications became of central interest to me.

Now when I have diligently read and kept tab on nearly all its important literature to date, involving a great deal of the hardest reading I have ever done, and having given courses on various aspects of it annually since 1908, my sense of its importance has, despite the extravagances of some of its followers and the lamentable schism which has arisen in its ranks, steadily grown. This is despite the fact, too, that I cannot believe that normal children show to any marked extent the infantile aberrations which are postulated; that I especially balk at the *Analerotik* and believe that the prenatal *Allmacht der Gedanken* must be at least complemented by the opposite sense of dependence; that I am convinced from years of study of my own dreams and those of my pupils that while there is a class of them which pretty strictly conforms to Freud's rubrics there are others that cannot possibly be explained by them; that I hold that the Œdipus complex is unhappily named because Œdipus did not know his father or mother and that the phenomena it designates are somewhat

less common than this theory assumes, and also that the incest notion in general has been still more overworked since Rank; that Jung's mysticism has quite transcended the legitimate bounds of science and some of it is not only conjectural but fantastic (and I have collected a large number of cases of what seemed to be the wildest kind of symbolism); that I deprecate the evil results which I know have often followed from the assumption of Freudian physicians that the key to all the symptoms of their patients is to be found in sex, so that analysis is prone to leave them unduly sexually-minded. Yet I recognize, on the other hand, the immense fruitfulness of these new methods of exploring the unconscious, welcome the new and adequate recognition that this school has at length given it—and that in the teeth of a psychology which ignores and even denies the existence and validity of most of the mechanisms, some of which I believe are likely to prove as significant in the world of psychology as innate ideas and the so-called categories have been in philosophic history —and I have the deepest appreciation of the service Freud has rendered our specialty by doing more to popularize and give zest to it among all sorts and conditions of intellectuals than any other man in the history of the science.

In my own experience in teaching it I have found over and over again that among those who heard me not a few had long been victims of morbid complexes, several of them to a dangerous degree; indeed, I think the majority of them, to some extent, were distinctly helped in their knowledge and regimen of themselves, and I am convinced that several of the most gifted of them have been saved from mental wreckage by it. It appeals to all classes and there have always been those outside the department or even the university who wanted it. The insight has

grown that every one should be analyzed, while introspection is slowly but surely coming to realize that its inquiries do not find their final goal in the most accurate or expert description of present states and processes of consciousness but that back of this there is an ulterior explanation of them all to be found in the intimate psychic history of each individual, so that in a sense psychoanalysis may begin where introspection leaves off and use its findings as its data or point of departure and not regard the *Anlagen, Einstellungen,* or *determinierende Tendenzen* of the post-Wundtians as ultimate.

Moreover, we have here a new method of both biography and autobiography. So far as history is the work of great men it will be better known when we have seen the secret springs of action of leaders, to a number of whom already these methods have been applied with promising results. It enters, too, the field of everyday life, shows the psychic element and its importance even in physical disease, mitigates strain and worry, sets forth the peculiar dangers of arrest in later adolescence, gives a new interpretation of such fundamental things as character and disposition, a new basis for the study of art and æsthetics generally, and is pregnant with suggestions of an ultimate modification, not only of the religious but of social and family life. The number of out-and-out disciples of the cult although small is growing, but its chief influence and its most rapid growth are found outside the circles of specialists, and here, as also within its more or less esoteric circles, there is no sign of any abatement of its fecundity, which even the war hardly diminished at all although it did teach the salutary lesson that battle fears and shock centered in the instinct of self-preservation and generally had little to do with sex.

Freud himself has lately claimed that there are

three great culture epochs in the world: (1) the Copernican revolution; (2) Darwinism; (3) his own achievements in properly introducing the unconscious to the world. There are certainly striking analogies, as he points out, between these three steps, and there are every day more and more who will agree with his high estimate of the importance of his own and his disciples' achievements. His views have certainly taken a very deep hold on almost all my students, as is witnessed by so many of their theses during the last decade, by their demand and eager use of this literature, and by the fact that a number of them are already teaching it in some form or to some degree or are engaged in the practice of it in some institution or elsewhere. Despite all this, however, candor compels me to add that I see very clearly, among these graduates, certain dangers which would perhaps be much greater with undergraduates in inducing them to think sexually. Many have testified to a new freedom in recent years in speaking frankly on subjects formerly tabooed, but I am old-fashioned enough to have felt slightly shocked at a few of the more frank discussions in which both sexes have participated, even in my seminary, and still franker discussions of which I have learned outside it. On the other hand, it must not be forgotten that young people's thoughts dwell upon such subjects at this age to a degree older ones are prone to forget and that to bring them more into consciousness and get the herd reaction may, on the whole, be itself a moral therapy. I certainly have yet to learn of any immorality that can be ascribed to our cult of psychoanalysis here.

The time may come, too, when this rejected stone will be the chief of the corner and psychology may begin or culminate here, and the unconscious prove as much larger than the conscious as the race is larger

than the individual. This new phylogenetic interpretation of Mansoul, despite all its extravagances and the bitter opposition and perhaps still more effective ignoring of it, really marks, more than anything else, the belated advent of evolution into the study of man's psychic nature, for there is a sense in which the oft-quoted distich, "Love rules the camp, the court, the grove; for love is God, and God is love" is coming to be recognized as only a plain statement of fact.

VI

According to an old saw, hunger is the co-regent of the world with love, and if genetic race psychology begins with the latter that of the individual begins with the former. The body is a chemical product subject to all the laws of the conservation of energy, and just as our world is the child of the sun, so all animal life is born of chlorophyl and all forms of vital energy are regulated by the intake and expenditure of food. Indeed, the body is a machine for the conservation, distribution, and transmission of energy and there is a sense in which every part and even cell is a digestive organ, so that we are constantly realizing in an ever new and higher way that man is what he eats and what he does with it.

Hunger is the very first expression of the will to live and this is true of all the thousands of species since life began. A very large part of the total kinetic energy of the body goes to digestion and a good part of the occupation of all animals is food finding and taking. As every one knows, since a cell is fed only by absorbing its food from the surface it must, as it grows large, either divide or die of inanition. The law of most of the world in the struggle for survival is to eat or avoid being eaten, for the stomach of its

enemies has been the grave of many extinct individuals and species. The suckling seems to say "The world is my food" and has no interest in anything else. The very first movements are hunger movements. Cilia, pseudopodia, fins, legs, wings, tails are to find or appropriate food or to avoid being food for others, and the same to a degree can be said of muscles and even glands. When we know its food we can define much of not only the habitat but the habits of animals. Food, too, is the first form of property and almost everything with any nutritive element has been food for something. The baby brings almost everything to its mouth as its chief sensorium. The primitive gods were mainly eaters, with cruel fangs and enormous mouths and maws.

Feeding is the chief method of training animals. The hearth and cooking were the nucleus of the home. Roux has shown the incessant struggle for survival among different organs in the same individual by competing for available nutritive material. Cephalization was developed about the entrance of the alimentary canal and the senses were at first food finders and testers. The same is true of the primitive noetic processes centering in the brain. The lower part of the face was developed largely as an apparatus for tricherating food, and the bestial muzzle, originally prehensile, declined in exact proportion as the hand assumed this function. Appetite is a kind of physical conscience, and taste a kind of premonitory digestion. Circulation is a system for the distribution of the finished products of digestion, and respiration is to remove carbon dioxide. There is a very pregnant sense, too, in which all death is due to starvation, local or general. The food supply may be insufficient, the energy of assimilation weak, the nutritive elements may not reach their destination or may be infected with unremoved and noxious products of decomposi-

tion, or germs may interfere with the process of restoration from fatigue or even with that of maintenance. Every one of the thirteen thousand sensations Külpe thinks man can discriminate affects metabolism. Indeed, education and even religion might be defined as a method of raising the plane of digestion, making the body an ever more fit living temple of the *Biologos,* imperfection of which involves lack of spiritual insight, so that if we are not interested in all things we have unused functions. To construct the higher compounds out of food is a kind of transubstantiation, for we really live by what we digest on the highest plane.

Again, pleasure and pain are very closely linked to the digestive processes, and the joy of physical life at and after a good meal is near its apex. Dis-ease is the chief fear and generally begins by our getting conscious of mouth, stomach, kidneys, liver, etc., and this hypochondria may be diffuse and not localized. All weakened functions tend to come to the front. Moreover, in autointoxication one organ's food or excreta becomes toxic for others. All dyspepsias are psychalgic, and even cancerous growths are products of a low level metabolism or unremoved byproducts. Thus nutrition is the background of all things. The soul is the most vital part of the total push up and heredity is "the voice of extinct generations in us." It is, as some one has said, like a large sum raised by small subscriptions, the list of which has been lost. If we feed well we pass over the earlier stages of growth more rapidly and normally, and thus the stages of recapitulation are accelerated, waste avoided, lacunae bridged, and the danger of degeneration or arrest is best eliminated. Well-cooked food, too, is the best preventive of intemperance, while adulterations and scanty supply favor alcoholism. The above generalities constitute points of view

which serve as the biological and physiological background for the epoch-making work of Pavlov and his school, which began some twenty-five years ago. Although he claimed that he had eliminated psychic concepts and put physiological ideas in their place, his experiments proved to be of almost epoch-making significance to psychogeneticism, and no one who accepts what is called the Unconscious can fail to recognize the immense significance of the "conditioned reflex" for behaviorism, which latter's speculative *motif* really owes nearly all its momentum to him.

As the world now knows, Pavlov showed that the perfection of the association of any stimulus with appetite can be measured by the quantity of saliva it evokes (the sialogic reflex). The hungry dog, at the sight and smell of meat, first secretes a rather definite quantity of saliva, and nearly this amount can be reached by the method of association in a successive series of experiments, which develop into a food sign, *e.g.*, a square disc. When this is shown and he learns that it just precedes the giving of meat the secretion may reach its initial maximum, and the completeness of the association is measured by the number of drops of saliva in a given time. Thus, too, thermal, tactual and, by far most finely of all, tone stimuli may be developed as effective food signs, evoking nearly or quite the maximum of salivation, and thus it is possible, too, to explore the discriminative capacities of the canine mind. The same method has been applied by Krasnegorski, Mateer, and others to the measurement of the mental capacities of human infants. The fading out of these artificial associations so voluminously studied has also proven a rich mind for the further study of memory, and all this fadges well with and makes more exquisite the speculation of Simon on mnemes and

engrams, a point of view too much neglected by students in this field.

Not only the action of the salivary but that of the gastric glands has been studied by Pavlov and his disciples, who have developed a mass of interesting facts by the clever method of separating a portion of the stomach from the rest of it and studying its secretory activity and products, which also reveals the startling fact that the composition of this fluid differs very exactly according to the kind of food administered or even expected. Carlson's patient with an artificial fistula in his stomach, the swallowing of rubber balloons to measure stomatic contractions in hunger pangs, etc., the functions of what even Pavlov once spoke of as the "pyloric soul" which determines what shall pass into the duodenum and when, the Metchnikoff conclusions concerning the large intestine, and those of Freud on analism—all this has served to bring almost the whole of the long alimentary tract into psychology and has tended to bring us again to the Aristotelian concept of a nutritive soul as fundamental.

The Wundtian psychology was mainly based upon the higher senses, sight, hearing, and touch, but now we are brought back again to physiology, this time to its chemical side. The hungry dog's psyche is so exquisitely sensitized that it may seize upon anything in the environment as a sign of the expected food, even the automatic movements of the make-and-break click. His sensitiveness is as great as that of the psyche of the learned horse, Hans, to the automatisms of his trainer, Von Osten, or as that shown in the wonderful feats of so-called mind—which are always really muscle-reading, so that the Russian experimenters had to develop an "automatic restaurant" eliminating every human influence.

Thus appetite, which is a very different thing from

hunger, is in exquisite rapport with all alimentary processes. Injections of sand or sawdust through an opening in the stomach cause no secretions, although the relation between stomatic and oral hunger is so close and cerebrally mediated that a dog whose esophagus is cut, so that all its food comes out into a dish without entering the stomach, keeps on eating for hours. The question as to what appetite really is is baffling, but it seems to have a prominence which is in some respects akin to *Angst* as the *primum movens* in neurotic and psychic disturbances. The old theory that appetite is hunger located in the stomach and that the latter is expressed only by its contractions when empty, is obviously insufficient because these cease after a few days of fasting. Dupuyten and Schiff, who place it in the blood, regard its apparent location in the stomach as an illusion similar to that which makes us project the pain of a stump to the amputated finger, and Guelpa's brilliant experiments that suggested that it was due not to nutritive material but to the accumulation of waste matter, seem rather yielding to a third theory that takes us back to the cells. At any rate, Turro would assume that what we call hunger and thirst are the summated feeble cries of every cell in the body for nutrition, while it is possible to go even further and hold that the ultimate basis of all psychic processes is cell-hunger or its opposite state, repletion. On this view curiosity and interest are inclinations to an intake by certain, perhaps cortical, cells of the elements they want from the fluids that lave them.

Such views even suggest an epistemological theory to the effect that the *edibilia* are more real than the *visibilia, audibilia,* or *tangibilia* because they may run the gauntlet of more senses since we not only see and touch but also taste and smell our food, each sense giving added criteria of reality. However this may be, appetite is probably modified by most of the condi-

tions and processes, not merely in the digestive organs themselves but in the blood and by the need of the ultimate elements of the body; and, what is more important, it gives or expresses an initial momentum to them all. If unperverted it points true as the needle to the pole to the needs of the body, and this concept dignifies the culinary art and greatly widens our conception of digestion. On this view it is possible to interpret mental zest as the effort to maintain a normal nutritive balance in the brain. The ego itself grew out of antecedent soul states as different from our own to-day as protoplasm is from the developed body. Everything is, of course, many times sublated or *aufgehoben*. Even a species is a stage of evolution interrupted at a certain point. Again, more or less controlled observation shows that all table accessories, social converse, etc., increase appetite and food consumption. Those who habitually eat alone are prone to develop phantasies of imaginary companions. They masticate less, are more prone to develop dyspepsias, etc. Discord or, for some, even controversy at table lessens food consumption and impairs digestion.

These roughly indicated *apperçus* which seem now focusing from so many different sources, seem to me to promise a new basis for psychology in the near future, a psychology perhaps dimly glimpsed by Jung, who in his *libido* theory does give a place, although a very inadequate one, to hunger. Such views would a few decades ago have been abandoned as materialistic, especially the view that identifies the quest for knowledge itself with the hunger of cerebral or other cells and with the new epistemology which holds that among all objects of knowledge food has a unique degree of reality. We know, of course, too little as yet of the details of the anabolic and catabolic processes to form a very clear idea of them, but it is

only the next step beyond the Lange-James theory to assume them as the basis of all psychic activity.

At any rate, these conceptions appealed to me so strongly that years ago I had at my own expense a number of translations and epitomes made of Russian literature on the subject, and developed a course outlining what I generally called nutritive psychology. Although I read widely and "digested" as well as I could, and repeated and amplified it half a dozen times, this course was perhaps the most undeveloped of all. Yet even here I venture to believe, from the reactions of individuals and classes, that the material I was able to give had a rather high stimulating and suggestive quality. There is, after all, much at bottom in common between food and sex despite the fact that food hunger is far more commonly gratified and normalized. The studies of fasting and starvation show that many of the same mechanisms recognized for sex are also true of food. Here too, science and praxis are still too widely divorced, and those conducting dietetic researches have little occasion to think of the millions just now starving in south central Europe and in China, and *vice versa* Hoover is no dietitian and probably has given no thought to the different kinds of food needed by different vocations. In fact, when a man passes from happy and torpid satiety at the close of a good meal to the active condition found after several days of starvation he has gone pretty far from one extreme of the algedonic state to the other, and character and disposition are profoundly affected not only in children but even in adults by their habitual position on this scale.

But in these interests my excessively developed synthetic propensities have perhaps led me farthest astray, for to develop the ideal of a system such as this one slowly evolved in my mind would require the carefully concerted activities of a group of experts

working on a unitary plan for years. Perhaps I have here yielded most to the dilettante's weakness of study for the sake of self-gratification, but at any rate I can cite in the defense of my position Lessing's famous thesis that the quest of knowledge is higher than its possession.

VII

As early as 1895 I had timidly offered a brief course on comparative religions and out of this in subsequent years grew a more belabored one on the psychology of Christianity. This latter was repeated and amplified every alternate year down to 1917, when I finally ventured to revise and publish it in two volumes under the title, *Jesus, the Christ, in the Light of Psychology*. In this work I tried, I think for the first time, among other things to apply the principles of psychoanalysis to the religious consciousness and sought to show that one might to-day be a true Christian while rejecting all crass material interpretations and of course everything miraculous, and explaining the origin and development of the Christian faith as a purely psychological projection of the folk and individual soul.

It was a long and laborious process from the rigor of the Puritan faith in which I was reared to complete emancipation from belief in all forms of supernaturalism, and I believed that the entire story of the rise and development of the Christian faith could be given a new scientific basis that would enable a psychologist of insight to reaffirm with entire sincerity, but of course with radically changed although intrinsically correct and therefore really orthodox interpretations, every article of the Apostles' Creed. I had always had clergymen in my classes and it was with growing surprise and delight that I found that,

with one single exception and that only temporary, every one of them who ever heard this course essentially sympathized with it, although to my great regret a few of them went so far in proclaiming it to their congregations that they came to grief.

As a young man I had read Baur, Strauss, Renan, Seelye, Matthew Arnold, and even Feuerbach, while Hegelism had greatly facilitated my own mental emancipation and it was only left for psychoanalysis to make it complete, confident, and even exuberant. The eschatology of Schweitzer and, in a somewhat less degree, the views of J. Weiss were of culminating effect on my own *éclaircissement,* and I sought to show how this might be carried still further by the assumption that Jesus died in absolute despair, feeling not only that He was discredited with all His followers and accursed of God but that He had been the victim of a great delusion, so that He died more completely than any one else ever began to do, expecting no future here or elsewhere; that His resurgence was the inevitable result of the tardy realization of this by those He left behind; that Paul's interpretations were only sublimations of the great ethnic faiths that abounded in the countries bordering the eastern Mediterranean, so that not only Judaism but they had a redispensation in the Pauline doctrines; that the phenomenon of Pentecost could be reinterpreted as the sudden resurgence of faith that the spirit of Jesus had arisen and was marching on; that the Messianity, the sonship and kingdom, and even the nativity could now have a new luminous psychological interpretation; that the many dramas and romances about Jesus were worthy of consideration because they were made, warp and woof, out of the same material of the imagination as creeds and even the gospels themselves; and also that we must face, and have nothing to fear from, even the extreme negative interpreta-

tions of His character, even those that made Him a lunatic, a degenerate, or, as Nietzsche taught, a fraud perpetrated by the Jews, who plotted and succeeded in making the Christians worship One whom they had execrated and executed as a criminal.

To realize that every article of faith, not excluding the belief in God and immortality, was an eject or projection of the folksoul in the struggle to make its own deeper and really subjective processes seem clearer and more certain by objectifying them, to realize that everything in all this field comes from within, as Berkeley thought the *esse* of the external world was its *percipi,* is the goal of religious enfranchisement and is the very opposite of the crass skepticism, atheism, and vulgar rationalism that reject all these psychic products. The literalists, dogmatists, and fundamentalists are the real materialists in this field and there is an exultation and a new realization of Hegel's dictum that mansoul cannot think too highly of itself. To have made this long "pilgrim's progress" from the crude faith of childhood, in various stages of which the vast majority of believers are arrested and go through life as victims of religious dementia praecox, seems to me to be perhaps the very most essential of all forms of education, and I believe we shall some time have a scale on which we can measure and grade intelligence and culture here which will be second in value to no other if we ever have a real index with the aid of which we can record just how far each soul has progressed toward its goal.

If, thus, everything here really does come from within,[18] one corollary follows that is not only absolutely irresistible and ineluctable but of the utmost practical consequence because it gives man a new and confident orientation toward nothing less than the

[18] See, *e.g.,* a charming illustration of what this does for a man in Sir Francis Younghusband's *Within* (Lond., 1914).

summum bonum itself. Having once realized how anthropomorphic man is and that everything great and good has sprung out of his own soul, it follows as the day does the night that man's primal duty is to keep himself always as near as possible at the tip-top of his condition. Every great step and advance has been made by those who, if we understand it aright and realize all the polymorphic forms of this condition, had attained it and spoke, acted, and created from the impulsion of the evolutionary urge that has impelled the race in every onward step it has ever taken. If this nisus is the great procreative impulse that made man first conceive Nature as *natura,* the about-to-be, as ever in labor pangs, it follows that the best we can do is to cultivate the supreme hygiene that makes us always ready to meet every new emergency so adequately that all its higher possibilities shall be brought out. We can never prescribe for all the multifarious exigencies of life, but just as general physical training alone can lay the broadest and strongest foundation for every kind of special athletic victory, so to keep the soul always in its highest state is not only the best prophylactic against all physical and moral evils but the best preparation for any and every new departure or achievement. In this state alone we can face and not flee from reality. It was this conclusion that I sought to draw in my *Morale* (1920).

Epistemological idealism has always seemed to me, as I have tried elsewhere to show,[19] only a diversion or abortion of the above culture trends which belong really in the religious field. Berkeley did not realize it but, in developing his subjective idealism, psychoanalysis now sees plainly that the direction of his

[19] "Why Kant Is Passing," *Am. Jour. Psychol.* 23: 370-426 (1912) and "The Genetic View of Berkeley's Religious Motivation," *Jour. Relig. Psychol.* 5: 137-163, 1912.

thought was only an unconscious *Verschiebung* or switching-off from its main track of the tendency within him to inwardize religious faith, which neither his training, position, nor the spirit of his time was able to recognize, into a very different field—the perceptual, where his unconscious made him compensate for being *détraqué* by overdoing or attempting the impossible according to a mechanism which psychoanalysis now well understands. If one cannot do a thing to which the deepest instincts of the soul impel him he finds recourse in attempting a task of a similar character in some very different domain in which yet more effort is required to carry it out. Thus the Berkeleyan subjectification we may now interpret as a symbol of what his deeper self really wanted in the religious field, with all the "apperceptive insufficiency" characteristic of symbols.

Perhaps the very deepest appeal which the New Testament makes to psychology is found in the fact that it gives to the world in concrete form the supreme portrayal of pleasure and pain, which are the sovereign masters of life, in their ambivalent relations. The progressive humiliation of Jesus as suggested by the new eschatology (the final conclusions of which I have nowhere found but attempted to draw and set forth) culminating, as I think, in His realization that He was absolutely forsaken of God and of man, that His cause was hopelessly lost, that there was no future for it or for Him, that He had been a fool and died as animals die, although this extreme of despair was mitigated in the gospel portrayal, constituted the chief theme of preaching that was amplified for centuries by the Church, although it had failed, if newer views are right, to realize the absoluteness of the great renunciation. Thus the story of the Cross has always been the world's masterpiece of pathos, and men and women have gone almost mad

with pity and have even mutilated themselves to share in the sufferings of their Lord or to bring home to themselves the more acute realization of them all. Thus when the tomb closed upon Jesus' broken body, all that He had said and stood for seemed folly and madness, and all who had believed in Him seemed convicted of fatuous delusion.

Then came the great reversal. First there was a faint whisper that He had arisen and even ascended to God, which at Pentecost flamed forth into a mad, passionate affirmation. Paul knew and preached only the risen Jesus whom he had not known in the flesh and whose death he had not seen or been moved by. Now the Crucified One became the great death-killer, the veritable object lesson of man's immortality. The victim became Lord over all and He was made not only the Messiah and Son of God but slowly became invested with all the divine attributes till He attained complete parity with the Father, ruling and judging all the earth, inaugurating the kingdom of God, and perhaps bringing all mundane things to a speedy and final end. No wonder, then, that His followers only a few short weeks after His death seemed to onlookers intoxicated with this new faith in resurgence, so that for generations men taunted and defied death, developed a certain etiquette of meeting it with bravado in its most dreadful forms, seeking martyrdom as a consummation and vieing with each other in courting its most cruel aspects. Now the paramount theme was not so much the psychalgia that culminated in Calvary but the euphoria wrought by the contemplation of the resurrection and exaltation to God's right hand.

This supreme epic of descent, even into hell, and of ascent, even up to Heaven, in a sense forms a *résumé* and gives the modulus for all human experience measured across its greatest, namely, the algedonic, diameter. Into it went the best lessons

which the cults of Dionysius, Orpheus, Attis, Osiris, and even Mythara had for ages groped toward and organized and which all their initiations symbolized. It is, in a sense, the summation of life. All drama and romance put the heroes through a series of trials, and just before the breaking point the scale turns and perhaps with Herculean labors of body and soul he attains his goal. Even initiations of primitives follow the same norm, as did those into the ancient mysteries. Thus to die and rise with Jesus, to participate sympathetically in all the incidents of the great way, down and up, that He followed, when interpreted in the light of modern psychology means to be given an immunity bath against abandon to either woe or joy, pessimism or optimism. We can bear suffering because we know that far greater pains than ours were borne by Him and overcome, and we are not swept away from our moorings by the ecstasies of joy and hope because we have realized that life necessitates incessant pains and inhibitions. Thus we are safeguarded from abandon in or even near each extreme. The heart is given a temper which enables it to bear ill fortune with fortitude and maintain poise and control amidst the completest gratification of every conscious or unconscious wish. One who has really been through and profited by such an experience, in which imagination is vicarious for reality, sees things in the right perspective, and every factor that makes for control and Aristotelian temperance is strengthened. Thus it is not surprising that we already have here and there tentatives toward a psychotherapy for those in whom melancholic or exalted states have begun, the one to unduly predominate over the other, which when rightly viewed and interpreted in terms of psychokinetic equivalents is nothing more or less than the Jesus cult applied to psychopathology. It is the world's great misfortune that this august lesson of

the Christian past had become obscured, its grand scope lost sight of in attention to details, that it became mechanized into formalism, materialized in dogma, and literalized by exegetes, so that its rediscovery by modern psychology is almost itself a new resurrection because it gives us for the first time a realizing sense of the convictions and insights, too large to ever completely enter the narrow field of the individual consciousness and hence thought divinely motivated, which dominated the founders of the faith of Christendom.

Thus in nearly all my lecture work at Clark I have felt that extensive were more useful for my students than intensive methods. Most of the work above described must thus be judged from a pedagogical rather than from a scientific point of view. The psychogenetic courses have been more special and for several years I gave an exhaustive and detailed course on the dermal senses, while the Pavlov course also was somewhat specialized. My three larger two-volumed books evolved from years of earlier lectures on the subjects of Jesus, adolescence, and pedagogy, and it was after their publication that the above topics were expanded and became exclusive. But in my judgment the average graduate student is chiefly in need of synthetic views that give general orientation and perspective. This, too, helps most in the work of collegiate instruction in which most of them will engage. It is because my theory and practice here have been so different from those prevailing in most academic teaching in this field that I have tried thus to describe and justify them against the criticisms sometimes made by those who have less horror of premature and exclusive specialization than I and a narrower view of what psychology really is and means.

VIII

If psychology is ever to become a true science it must emancipate itself from certain metaphysical vestiges which still encumber it in the form of problems which it inherited from a past stage of thought, problems which have been the center of many discussions and prompted many investigations but which are not yet, and perhaps never will be, capable of solution because they were wrongly put. The most insidious of these heterae, as Bacon dubbed their analogues in his day, are those pertaining to the relation between the mind and the body, and are as follows:

1. The psychophysic law, which held that as sensation increased in arithmetical, the stimulus must do so in geometrical proportion, one increasing by a constant difference, the other by a constant multiple. This was shown in very painstaking experiments to hold approximately for most sensations which could be experimented on within certain often wide limits of intensity. Here Fechner thought that we had a mathematical relation established between soma and psyche. But with minimal and maximal stimuli this law broke down—tickle, for example, seeming almost to invert this relation, so that there is a place in the scale where the slighter the stimulus, the more intense the sensation. Now work in this field has long been suspended and the once very important psychophysic law occupies very little or no space in our textbooks.

2. The Lange-James, sorry-because-we-cry theory, which has long bulked so large, is really only a philosophical speculation and entirely beyond the present reach of methods of scientific investigation. There is much in the domain of affectivity that seems to favor it but it is utterly undemonstrable if applied to any relation between brain processes and thought.

This theory has provoked much discussion and many experiments and even gives its own standpoint to the treatment of certain clinical data, but it, too, involves, if it does not turn on, the old "philosopheme" of monism versus dualism and has contributed little or nothing to the permanent acquisitions of psychology, has made no progress in solving its problems, and its fate will be not unlike that of the psychophysic law.

3. The terms, parallelism and interaction, indicate another theme fruitful only in "a harvest of leaves" with no advance beyond the standpoint of Malebranche. Had not the soul been so long and so inveterately considered as a separate entity such an issue could never have arisen, and if monism is true the problems this antithesis raises are all surds. Parallelism is as absurd to-day as it was when it was conceived as two synchronous clocks, and interaction presupposes a dualism which we can neither affirm nor deny. This question has intruded itself not only into the study of brain states and changes and circulation but into the new domain opened by endocrinology, but it has been everywhere impotent of new results of value.

4. The controversy between functional and structural psychology is another surd. No two psychologists conceive the difference between these viewpoints alike and their definitions not only differ but are almost equally hard to understand. The one sure fact that stands out sun-clear is that if evolution had ever really penetrated the minds of those working in either camp in a way to show its transforming and enlightening power such a question could never have even originated. It has at least some of the flavor which pervaded the old warfare between innate and acquired mental content as conceived in the days of Locke, unilluminated by Spencer's formula, "innate in the individual but acquired by the race," and still less

by the analogous debates between the advocates of preformation and epigenesis in biology. In my judgment the discussions of this question in psychology have not only been barren of all results but have diffused darkness and obfuscation.

The first three, at least, of the above illegitimate centers of apperception sprang directly from, or only somewhat indirectly out of, the old body-mind antithesis, and temperament and preconceptions more than facts determined individual standpoints. Each made partisans in a way less characteristic of science than of the philosophical, not to say the theological, stage of studies of man's nature. It requires little knowledge of psychoanalysis to see that a personal interest in the postmortem survival of the soul supplies the background motivation of these quests, unconscious though it may be, as it does of all theories of a unitary and ipsissimal self.

5. The present very active discussion between introspection and behaviorism is also in part animated by the old body versus mind antithesis. The latter was inspired by the Pavlov school, which would reduce experimental psychology back to physiology, from which it sprang, while Wundt vehemently repudiated the post-Wundtian introspectionists. The latter stand for a psychic, the former for a materialistic, monism. So, too, Freud and his orthodox disciples concerned themselves solely with psychic, ignoring somatic structure and functions, which latter Kempf, the only American who has done signal creative work in this field, has sought to supply. The very fact that Wundt should seek to crush the introspection movement inaugurated by his own pupils and that Freud should condemn the work and ways of Adler and the Zurich school developed by his disciples is hard to understand save as the child-devouring Saturn complex which made the primitive father so

jealous of the power of his maturing sons. The above are both, and to an extent which seems nowhere realized, high-level outcrops of the eternal rivalry between father and son.

Extreme behaviorism would repudiate, if this were possible, the very word consciousness, which has always been the muse of all the philosophical disciplines and which Freudians might be said to at least tend to regard chiefly as not even a symbol but as only a symptom. It has no phobia of the term unconscious or of what it designates or implies but ignores inner states and processes and is intent upon activities that can be observed objectively, adopting thus the methods of the study of animal life. Unfortunately, a few years ago the devotees of introspection put forth the claim of being the only true and pure psychologists and would exclude all other investigators, as if our science had nothing to do with genetics, neurology, physiology, or even psychiatry and anthropology. This, of course, brought resentment and reaction. Introspection made no attempt to explain the flitting vestigial and marginal states that their theses recorded or to trace the differences in these phenomena to their origin in individual disposition or experience, and drew few and meager conclusions from the vast body of data which they accumulated. They amplified, of course, the old distinctions between eye, ear, and motor-mindedness, made something like categories of *Einstellung, determinierende Tendenz, Aufgabe,* etc., and discussed whether thought processes were always imaginal or could be pure. They decanted old meanings from one terminology into another, as we psychologists are so fond of doing, as witnessed also in the historic career of such words as suggestion (which two decades ago Baldwin and Royce made supreme); memory (Hering-Simon); association (the British school and later Jung's ex-

perimental, diagnostic use of it); apperception (which is perhaps the chief contribution of the Wundtian school that enabled it to break from the old associationism); dissociation (culminating in schizophrenia); the self as an independent and undecomposable thing (variously conceived by Royce, Howison, Miss Calkins, and others); and now sex by the analysts, etc.

Each of these in its day and by its advocates has been made supreme, and most if not all other psychic activities have been derived or explained from or by them. It was exactly thus that Hegel came to conceive the whole process of culture history as progress in the consciousness of freedom; that made Ferenzi find it in the infant's sense of what he termed *die Allmacht der Gedanken;* while, conversely, Schleiermacher conceived the evolution of the soul to be measured by growth of the sense of absolute dependence, which has a rather close relation with the Adlerian idea of inferiority (*Minderwertigkeit*). All this shows that psychology has not yet transcended what Comte described as the metaphysical, if not, indeed, his theological, stage of thought or what Hegel called the animal kingdom of mind, where the chief quest of every system is for categories.

If we define psychology broadly as the knowledge of human nature, its academic devotees have during the last decade or two added but little of scientific or culture value and in some respects their work has rather dehumanized it. There is far too often a pedantry of method and technic with paucity of results. The field is so vast that, having barely glimpsed it, the young psychologist, as if smitten with agoraphobia, is impelled to seek the sessile stage prematurely and dig himself into some specialty as if to protect himself on the principle of safety first in a carapace of technicalities. Thus it comes that the

one answer to those who attempt to criticize is more and more commonly that they do not understand, and this is increasingly true. Psychologists do not quite understand each other so that the further explanations and even definitions of terms new and old are tediously frequent in the current literature.

Another and graver result of this situation is that there is an almost complete lack of what may be called the higher criticism that seeks to see and show things psychological in a wider perspective, so that not only interested laymen but professionals themselves fail to grasp the *cui bono* or the *raison d'être* of all this armentarium of apparatus in our laboratories, whether our instruments be refinements of those first devised by physiologists or simplifications of the far more elaborate ones of the physicists, or whether we borrow rudimentary methods from the mathematicians.

For myself, I am convinced that neither the metaphysician, philosopher, mathematician, chemist, physicist, nor, strange as this may seem to some of my fellow psychologists, even the mechanic or mere computer, is or ever can become a good psychologist. All of them lack the instinct, insight, or *flair* needful here somewhat in proportion to their excellence in these fields. Their influence is de-vitalizing, de-animistic, de-anthropomorphizing while psychology stands for the progressive refinement and final blossoming and fruitage of just these tendencies, which take their rise in biology. Thus, too, it comes that contributions are addressed to those in the author's own group—testers write for other testers, introspectionists and analysts each for his own set—as if authors gloried in being esoteric and caviar to the general and would feel broadcasting vulgar. The programmes of our meetings contain too many unripe and minor papers by those in the apprentice stage while leaders have rela-

tively less and less to say, discussions of fundamentals or wider orientations as to first principles are out of date, and the differences between the sects seem to be accepted as necessary instead of being regarded, as they really should be, as challenges to rise higher and find some mediating principle.

The true psychologist born and bred, yearns with all his heart for a deeper understanding of man and of all his psychic life, past and present, normal and morbid, good and bad, at all stages of his life. He also regards every human institution as an expression of more basal human impulsions and interests because they shed light upon these, which constitute his primal nature. He feels a peculiar urge to be intensely human and to glimpse, feel, or strive in his own brief little life for everything possible to man's estate. If things go wrong in human affairs he feels that there must somewhere be a psychic cause which it is up to him to detect and if possible do his bit to remove. Thus he is called to-day to be a sort of high priest of souls as in an earlier age the great religious founders, reformers, and creators of cults and laws used to be, for the day of great leadership in these fields seems to have passed. If he is concerned, as he should be, with the education of the race, nation, or individuals, he is not content merely to fit for existing institutions as they are to-day but he would develop ever higher powers, which gradually molt old and evolve new and better institutions or improve old ones. He can never entirely forget the eternal challenge of the Sphinx riddle. He has a passion to know himself as he really is and how he came to be just what he is. He has a burning curiosity which may intermit and be diverted but which never ceases to want to know a little more truly what life, love, the deep instincts, interests and typical experiences, and birth and death and everything between, really are

and mean. He is unhappy if he feels no sense of making some progress towards these goals.

If we may venture forecasts as indicated by basal present trends they would be something as follows:

Practical psychology, which has done so much and will do far more in grading intelligence and in fitting men to their jobs, will transcend the fields of business and school and address itself to a more comprehensive programme. It will refit present institutions, social, civic, political, industrial, religious, etc., to the nature of man, which is at least one and may be several hundred thousand years old, and thus relatively, not only to the present industrial system, which at the most is only one five-hundredth part as old, but to all other even far older institutions must be regarded more like the unchangeable laws and forces of the physical universe. Just as we study the forces of the latter to see clearly and in better perspective his fundamental traits to remodel our civilization upon them, or to give Carlyle's *Teufelsdröckh* a wardrobe which fits and does not chafe him or impede the freedom of his movements or arrest his development. The world needs a new psychology larger in all its dimensions more than it needs anything else. All the great problems of our age are becoming more and more psychological the better we understand them, and despite the pioneer anticipations of men like Thorndike or McDougall and a few sociologists and historians like Parker, Ellwood, Robinson, Barnes, and anthropologists like Grant, Stoddard, and many others, we have been caught unprepared. Limitations of food and drink, of late years so widespread; of the instinct of domesticity so often inhibited by our industrial system; of the noetic urge; of the gregarious impulsion to get together; of ownership; the narrowing of the pleasure field; restrictions of liberty, and many more: it is these that have caused a deep and very

widespread feeling of unrest which is so prone to deepen to misery, despair, and revolt,[20] and which a better understanding of mansoul might have prevented or at least mitigated. Nearly all the disorders of our day are thus largely of psychic origin and are due to the fact that we have not realized that institutions were made for man and not man for them. Consciousness as we know it is only a port of entry and departure for a vast and yet only partially explored hinterland, although we already know far more here than has yet been put to use. The little psychology which advertisers, salesmen, social workers, some demagogues, and still fewer employers and statesmen have lately learned has made the work of all of them more efficient than before, while captains of big business and politicians generally would profit no less and probably far more by what this department could already teach them.

As we now conceive the self or ego as made up of many different and partially independent qualities and trends, united in and by an inscrutable something far deeper than consciousness, so the conception of a collective, *Volks,* mass, crowd, mob, group, herd, or community soul, which we can never come to know by the study of any number of individuals but which is just as real and even just as unitary as their souls, is now everywhere gaining ground. We know the inner essence of neither. Both we can define only as Steinthal did languages, *Sie sind was sie werden.* Both have conscious and unconscious factors and processes and both are as plastic and receptive, on the one hand, as Hering and Simon conceived the mind and, on the other hand, are as creative and original, if not more so, than Bergson's philosophy makes them to be.

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[20] See my "Psychology and Industry," *Ped. Sem.,* vol. 27, 1920, pp. 281-293.

Both can be seen in all stages of development and their diseases and forms of arrest are strangely and illuminatingly alike. Thus there is a very pregnant sense in which all great institutions, organizations, and even parties, sects, creeds, casts, localities, races, nationalities, and all the countless voluntary associations have souls if not bodies, just as have also hives of bees, animal colonies, totemic clans or hordes, the family, college, home, etc. Like the individual, all are deciduous leaves on the tree of life, nourished by the same sap but leading a more or less phenomenal life of their own or, like the sponge polyp, doing its own business but united by a stem with the whole. Institutions die and give place to others, and when their *esprit de corps* declines or, like the individual, they begin to be pervaded by a sense of their own doom, a deeper sense of unity arises and this is the matrix from which new institutions develop.

History really began with the leadership of great chiefs, patriarchs, monarchs, who were themselves free but could compel their subjects to their will, perhaps with the power of life and death. Out of this, the old theory of the state, which is to-day replaced by the new conception of it as a legal community which is "at once a law-creating personality and subject to law" but in which the subjection is only to public interests,[21] an international soul is now slowly being evolved. One of the very best scales on which to measure progress is the growth of the collectivism that goes with democracy. The great assumption is that we are all wiser than any one and that the *vox populi* is the only *vox Dei.* This has gone so far that the lack of the world to-day is chiefly that of competent leaders whereas formerly we had too many or

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[21] H. Krabbe, *The Modern Idea of the State,* N. Y., Appleton, 1922, pp. 74 and Ch. IX.

their powers were too great, so that the world, especially since the war, has lapsed to a *laissez faire* attitude, throwing its burdens more or less upon blind fate or upon posterity as men once were enjoined to cast them upon the Lord. All this is well illustrated by the limitations of representative government, by initiative, referendum and recall, and still more by lobbies, petitions, etc., so that our legislators tend to become mere delegates and often waive their own convictions for those of their constituents. Democracy everywhere, thus, tends to the dead level of the average man and to the dominance of Faguet's incompetence and mediocrity.

Unfortunately, the psychology of mass or herd action began with the study of the extreme form of the mob (LeBon, 1903) so liable to stampedes like animals, with its intense credulity, irresponsibility, sense of power in homogeneous groups, immediate and direct action, contagion by suggestion, and action directed often against the individual's own interests. We have studied, too, some of the great popular delusions, convulsionnaires, flagellants, witch mania, Black Death, the South Sea bubble, the extravagances of Jumpers and Barkers, fads and fashions, all of which have swept the individual from his moorings to do what he would never think of doing by himself. For a long time it was not adequately realized that collective psychic group activities were even more often benign than malign and that they had done some of the best as well as some of the worst things in the world, so that we have to-day even the theory of "Proletcult" which strangely fadges with the Durkheim theory of the corroboree, that many if not most of the great creative upward steps in the early culture history of mankind were taken, not by individuals but by groups of them stimulating each other into a partially frenzied or inspirational state. Both public

opinion,[22] which is the supreme arbiter in democracies, and propaganda,[23] which strives to give it a specific direction, are based on collective feeling and thinking and work by the methods of contagion.

Thus the herd instinct, to the study of which we are turning from the predominant attention to individual psychology, is, next to hunger and love, the oldest and strongest of the many human impulsions, and the collective soul is just as real and dynamic, and also just as intangible and indefinable, if not as unitary, as that of the individual. Most of the great institutions which evolved from the folksoul—religion, church, state, science, etc., have, like the individual, both a body and a soul. The city consists materially of its buildings, streets, drainage, lighting, transportation and other systems constructed by thousands of laborers living or, most of them, long dead. There is no record of how much or what each of them did but we daily enjoy the results of the toil of generations of them. They made not only our corporeal city but the manufactured products which are the basis of our prosperity. They cleared away the forests, tilled the land, constructed harbors and ships, and absorbed in the contemplation of this, Karl Marx leaped to the extravagant conclusion that all property originated in the muscle work of laborers. But those who thus built our city had the aid of machines and trained mechanics and their toil was planned and directed by brain workers, and it is they who created or constitute the soul of the city. Their insight, foresight, and oversight, enterprise and energy, utilized opportunity for achievement; and their business sagacity, experience, integrity, and the contagion of their example all entered into the composition of the

[22] Walter Lippmann, *Public Opinion,* N. Y., Harcourt, Brace and Howe, 427 pp.

[23] E. K. Strong, Jr., "The Control of Propaganda as a Psychological problem," *Sci. Mo.,* March, 1922.

municipal soul. It also found expression in literature, scientific discovery, reforms, endowments, which contributed their quota to local pride, civic tone, opinion, and morale, political and other traditions, etc. and this gives a communal psyche. To-day Boston, New York, Paris, and of old, Rome, Athens, Jerusalem, Florence—each has had a pervasive individuality of its own which has given its own type of character and personality and perhaps its own cult to its citizens. Some of them influence the others as individuals influence each other in society. Thus dead cities live in those of to-day as great men of a remote past still rule us from their urns because they contributed something to our psychic milieu or constitution.

Even each of the great races of mankind, Nordic, Mediterranean, Alpine, Negro, Malay, and the rest, have their own distinctive traits, sentiments, and traditions which outsiders can never understand but which unite members by common bonds and predetermine the activities of the whole, and, to a great extent, of each. Great industries in the days of the medieval guilds did the same and now again there is some prospect that we shall ere long be ruled by industrial "blocs" rather than by parties. Social classes—plebeians, patricians, proletarians, aristocrats, all have a common *esprit de corps* which modifies character, sentiments, conduct, and thought. Above all this is, of course, the soul of humanity itself, the object of all true philanthropy, the realm in which only the great religious founders have successfully wrought and which our psychology of to-day is only just beginning to understand. Mansoul itself, of course, transcends not only all ethnic but all other distinctions within the human race and works in and through only those elements which are common to all mankind. The literature that appeals to it is farthest from that

which is ephemeral, and constitutes the classics or bibles of the ages. The racial soul is hardest to describe or conceive and whenever man has endeavored to form and project an image or even a symbol of it into the narrow field of his objective consciousness he calls it divine, realizing, as all workers in this field do, that the truest god for man to worship is only the embodiment of his own fecund, irrepressible, racial soul which has made all religions and every other institution in and before history.

Finally, back of all this we know there must be a cosmic soul or *animus mundi* that is the source and all-sustainer of nature, out of which not only man but the worlds themselves sprang. This all-father-mother is also material as well as psychic. "Each star is a soul in its body; all forces are acts of this soul." Here perhaps the animism we now know to be inexpugnable from the human soul, because one of its most fundamental instincts, celebrates its highest triumphs.

To the rigorous behaviorist the belief in individual souls is the product of an animistic or anthropomorphic psychic trend to be outlawed, while to the psychoanalyst it is a symbol, "conversion downward," or idolatrous *Verschiebung* of the deeper and less conscious faith in the soul of the race (Comte's *Grand Etre*).

Thus, just as the microscope and telescope are now each supplementing the other and while chemists and physicists are coöperating at so many points with astronomers and finding how many of their problems are the same;[24] or, again, as history and biography and autobiography are needing and shedding light on each other, so the psychic microcosm and macrocosm are coming into the same relations of mutual aid and psychology. So, too sociology must henceforth ad-

[24] See E. G. Hale, *The New Heavens*, N. Y., Scribner, 1921.

vance in span, those in each field progressing most who keep in closest touch with the other.

Thus the child's revolt from the father in the Œdipus complex explains and is itself explained by the historic revolutions and revolts against authority. Panics in communities are like phobias in the individual. Parties are like intropsychic conflicts which may issue in schizophrenia. Mobs are mirrored in outbreaks of passion overpowering all control; propaganda is the formation of a complex. The passion for boundless freedom goes back to claustrophobia and the dangers of cave life, while dementia praecox has analogies with the horror of open spaces, most intense in human evolution when our forbears were just coming down from the trees and were exposed to new dangers if far from these safe retreats. Narcissism is like the Fourth-of-July spirit of complacency with progress. The real war spirit, so hard if not impossible to eliminate, is like an outbreak of anger, which may be righteous, beneficent, and even sublime, or a product of irritability and morbid touchiness. The statesman's dread of grappling with new and difficult questions is like the neurotic's flight from reality. Both public opinion and national sentiment may swing from one extreme to its opposite in a way conforming rather exactly to the phenomenon of ambivalence, which may also culminate in schizophrenia. Conversion phenomena in both have similar rubrics. Both have like phenomena of arrest and perversion while in both morbid often simply magnify normal processes. Stages of development have a similar sequence, as recapitulation shows, and the relations between the conscious and unconscious factors in history, which may be shaped by the deliberate plans of leaders, on the one hand or the dominance of economic, telluric, climatic, and other material influences, on the other, are much the same as in indi-

viduals. Now both are ruled by new *Einstellungen* and determining tendencies and anon, in *laissez faire,* float with the tide. True races represent types of character and disposition. Myths are dreams and phantasies of ethnic groups, etc.

In fine, as an atom, id, a single brain cell, or the simplest true psychic element, if such there be, would find it hard to conceive of an individual psyche, self, or soul, as having any true independent reality or as anything more than a convenient general term permissible only for designating the activity of thousands of beings of its own order, so do we find it hard to believe in collective souls of higher order than our own. But this we must do or our science will suffer yet more from isolation and the slow processes of arrest and desiccation.

The longer I live and learn, the surer I become that the true psychologist (like the mathematician or musician) is born quite as much as made and also, conversely, that there are many otherwise normal and even superior men in this field who are invincibly defective in true psychological sense and gift. The former, or the elect, are endowed with intuitive or instinctive insight into human nature, which the latter lack, some of them teachers and even investigators. Perhaps some day there may be tests to distinguish between the fit and the unfit. The most elemental expression of this diathesis is the impulse to objectify and perhaps describe one's own inner states and processes, so well illustrated by the introvertive temperament of James, for example. It is this that gives the appealing humanistic touch so necessary not only for carrying conviction but for grappling with the larger and deeper problems of the soul. This kind of self-knowledge is the key to understanding others. It is just this that is impossible for the egoist. It is this, too, that gives a sense of one's own personal

limitations and out of it is born the desire to compensate for these by getting into vital and sympathetic relations with as many and as diverse types of personality and viewpoints as possible; to glimpse how life and the world look and feel from behind the skulls and under the heart, not only of those about us but of humans of other races, ages, stations, creeds, of savages, defectives, the insane, and even of animals, for all of these, not excluding the last (the Animal Epos, Rostand's "Chanticleer," etc.) help to make up the personnel of the *comedie humaine*.

Once more, the ideal psychologist must have a rich and varied personal experience because sympathy and imagination, however highly developed, can never take the place of life itself. He must have both believed intensely and doubted radically. He must have felt and have occasionally fallen before temptation and thus learned the cost and power of self-control. He should have felt the depression of poverty and the expansion that comes with possession. He must have known something of the despair that comes from its loss and have learned at first hand how failure and success feel. "'Tis life of which our nerves are scant; more life and fuller, that we want." Once the religionist but now the psychologist feels this most profoundly. Wherever human interest has been deep, long, and intense, he would not be a stranger but more or less at home for it is he who is called to be the humanist *par excellence* in our world. No department of knowledge is entirely alien to him and none is so comprehensive, difficult, so palpitating with pure culture interest, or so all-conditioning in its countless practical applications so cryingly needed, as ours. A better knowledge of man is the greatest of all the great and many needs of the world to-day.

If the above is at all true, how culpably short we have fallen! For it follows that the selfish egoist

intent chiefly on founding a school, the cloistered academician who knows life only from the laboratory or the study window, the partisan of one group who cannot appreciate new and opposing views, the mechanician who subordinates results to overelaborated technic or methodology, the tester who thinks he can already determine general and even innate ability instead of really being able only to help in steering men to jobs for which they are fit, those who believe they have reached finality or ultimate elements, those who lose their balance either way between culture and *kultur,* forgetting that nowhere are *kennen* and *können* so inseparable, or forget that there is nothing so practical as a good theory—all these have done and will yet do useful work but they will never enter the additum of psychology.

As to individual psychology and tests, I have the following to say.

The Delphic admonition, Know Thyself (*Gnosce seauton*), indicates that this is the highest kind of knowledge. So, too, taught the Indic philosophy of the Vedanta. Extreme subjective idealism or solipsism insists that man can never know anything else but self. Emerson says in substance that everything on earth and in the heavens is a mirror of Mansoul and calls us to self-knowledge. It is a staggering dictum that this is the ultimate goal of every noetic impulse, the only blossom on the tree of knowledge that ever produces fully ripened fruit. Pope's "the highest knowledge of mankind is man" only hints at it. It is the terror of neurotics who, Freudians tell us, always resist it but undergo remarkable cures when they are really brought face to face with themselves and realize what they truly are. It goes far deeper than seeing ourselves as others see us, although this sometimes comes in a stunning way.

Now, I will say that I really want it, as every born psychologist should, and here is the proof. Some fifty years ago as an impecunious student I paid five dollars to have my bumps charted at the Fowler and Wells phrenological institute, then on lower Broadway. Mr. Sizer, who did the job, told me that he would rather feel for five minutes through a cathole the skull of a girl he thought of marrying than court her five years. His findings were so pleasing to my *amour propre* that two or three years later I went again, with even more satisfaction, so that I had the exhilarating sense that in the interim I had "every day and in every way" been growing wiser and abler.

Some thirty years later I chanced to meet the great Cheiro, handsome, magnetic, and in his day the pet of the New York "Four Hundred," whose gorgeous illustrated volume had been sent me, and I submitted my palm to him. But this time with very depressing results. He found my life-line so broken that I should have been dead about that time; the line of intellect was very faint, indicating low mentality; by my wealth line I ought to be rich (and from his fee he probably thought me so). I was an incorrigible bachelor and my character was a complex of incongruities. In a word, my hand gave the flat lie to what my bumps had said, and as evolution teaches that man, who descended from tree-dwelling anthropoids, is hand-made quite as much as head-made this was most disquieting.

Lombroso has several score of physical and psychic traits which he deems stigmata of degeneration characteristic of criminals and of these I was found to have seven more or less well developed. At the Bernheim Institute in Paris I had my finger-tips taken and interpreted, for these, some think, have high diagnostic significance. Later yet, a Blackfordist tested me on all the, I think, twenty-one points in

that system and at the close asked me if it was worth ten dollars. It was. In Portland, Oregon, I found an expert who had worked years with the MacAuliffe-Sorel group of anthropologists and he apportioned my points between the four human types (abdominal, thoracic, muscular, and cerebral) in a way that I regarded most helpful to regimen and which could not fail to be suggestive to my physician. I began to psychoanalyze myself but, finding the task too hard, called in an expert to finish the work, with results which nothing would ever tempt me to tell.

Still far too ignorant of the one I ought to know best, I took all the Yerkes army tests and the dozen or so shorter series devised for adults, and even put myself through the Binet-Simon series and their modifications by Terman; also the de Sanctis fool-finding series and at least a score of the tests for special avocations. In fact, my friends have spoken rather slightingly of my passion for collecting and trying out tests, of which I have some hundreds. Judged by the Edison stunts I was a near moron and in the Stenquist series much below the average, while I cannot even yet understand the Royce Ring. Some college entrance tests would bar me from entering the freshman class while in many of the simpler ones my I. Q. (intelligence quotient) indicated a psychological age of at least a hundred.

In Harman's test of the higher mental processes and the Bonser reasoning test, for example, I was surpassed by a girl of eleven. My order of excellence in the simpler tests was: cancellation, completion, association, complication, memory span, assembling, etc. The results of all seem, thus, so confusing that I recall the chameleon which when placed on red cloth turned red, on blue, green, and yellow, turned these colors, but when placed on a bit of Scotch plaid died trying to make good. The time limits are hardest and

must tend to discredit the slow-but-sure type that really does so much of the world's best work, and the premium is, in general, upon a kind of superficial mental agility, not excluding accidents of experience and information. We have no method of testing testers, whose competence varies vastly from mere mechanical accumulation of data and the busy work of computing correlations up to real insight and sagacity. Nor do we find any adequate evaluation of the tests themselves as to what qualities they appeal to and what these qualities are worth for life. The wider the range of individual differences, the less is the value of the conclusions for each person tested, no one of whom may be an average case. Moreover, as Lippmann has shown, we cannot test native ability, for when individuals are old enough to be tested, too large a proportion of their abilities is acquired from experience. Indeed, there is probably no such thing as general ability for this is always specific, just as we now know there is no such thing as a truly general culture, as educators so long claimed. Of this we may say to the testers, *Zwar Ihr Bart ist kraus, doch hebt Ihr nicht die Riegel.* I would cast no discredit upon this work, much as I deplore its present monopoly of psychological endeavor, but to my mind no one has made it sufficiently clear just what even the most used of them really tests, and still less justified for either psychology or for life the value of the powers they activate. All of them together have done a great work in applying psychology to life and industry but have added scarcely a scintilla to our knowledge of the human soul. They have already done much and will do far more in the great economic task of fitting men to their jobs; and we may hope they will sometime proceed to the yet higher task, so well begun by the experts but so largely forgotten by the testers, of fitting the man to the job. I must finally here

record my own real appreciation of some of the appraisers of human qualities whom psychologists are too prone to indiscriminately dub as fakirs. There are those who are born or find their way untaught to most sagacious insights into human nature which make them of great service in diagnosing fundamental qualities and in placing men, and from whom we experts have yet something to learn.

I have, however, as a result of long experience with academic youth developed a few very definite rubrics which are more and more dominant in the estimates of men that university dons are so often called upon to make for graduates in the process of choosing a vocation or seeking positions. These tests for estimating a young man's chances for success seek to evaluate far more fundamental traits than mere information or mental alertness, and are as follows:

(1) Health. Its etymology means wholeness or holiness and inquiries after it are the most universal of all forms of greeting. The more we know of hygiene, physical and psychic, the longer becomes the scale between wellness and illness, not considering the appalling percentage of actually sick people and the vast losses in time and industry and the accidents caused by those below par who should be laid off. Imagine a scale so marked that zero is death, 100 the very apex of good condition and morale, and 50 the point where the average man calls the doctor. Very few live out their lives above 70, 80, or 90 on this scale and most affect wellness if the doctor is not called.

Now, my thesis is that most of the best of the world's work has been done by men and in moments of superb health, that great achievements are products of abounding euphoria or joy of living, of superabundant vitality, that is, above 90 on my scale, and

that to these superlative degrees of health hygienists gave very little and doctors almost no attention. But it is position on this scale that chiefly conditions morale, whether individual or collective. Man sprang from the most active and vital of all mammalian forms and he ought to be the most nearly perfect of all animals. Ah, you object, you forget Darwin, who fought neurasthenia all his life and could work only three hours a day; the neurotic Nietzsche, always fighting megalomania; Spencer, everlastingly coddling himself; Stevenson, fighting tuberculosis, etc. Yes, the list of great invalids is long but, on the other hand, the study of two hundred biographies shows that the list of great original minds who were supernormal in health is about fourteen times as large. Socrates was a prodigy of physical toughness and animal vitality; Plato was a prize-winning athlete, named from his breadth of shoulders; Jesus, recent Christologists assure us, instead of being the haggard and anemic ascetic of early Christian art, was a paragon of physical perfection with an unprecedented magnetic charm which made Him the most impressive personality in history. Think, too, of Charlemagne, Dante, Peter the Great, Dumas, Garibaldi, Goethe, Napoleon, Gladstone, Bismarck, Helmholtz, and men like Burbank, Rockefeller, Edison, and scores of others who have had so very little to do with doctors. Moreover, the great invalids must be regarded as richly endowed with the supreme blessing of health (which, by the way, gives a greater joy than satisfaction of any special inclination) because they not only overcame obstacles and handicaps which, like inertia, always tend to inhibit creative activity, but also had to resist many of Metchnikoff's disharmonies in the composition of their psychophysic makeup or the slow disintegration caused by morbific germs which had found a nidus in their

bodies. Kant, his biographer says, spent more mentality in keeping his frail body alive and well up to eighty than in writing all his volumes. It is a marvel that some of these men accomplished anything. Most of them were prodigies of hygienic endowment and achievement despite the progressive inroads of disease. We must not forget that there is a health sense with which some people are born that can be developed to some extent by training and of which others show no trace through their entire lives, squandering health as the spendthrift does money.

Thus, to succeed one must, first of all, be a good animal. Youth must lay up capital of this supreme wealth and worth and with years we must grow more expert in avoiding not only disease but undue strain so that the quantity of energy meted out to each at the start be economized; and as we grow old we must devote more and more time and wisdom to keeping ourselves in condition. How many young men of promise, many of them of rare ability for whom I had prophesied eminence, after perhaps an auspicious start have faltered, grown sterile, made strange mistakes, and perhaps gone down. And the real cause of it all was a subtle decline of physical vigor. We know now, too, that a large proportion of industrial accidents, as well as those on the street, farm, and home, are really due to slight and very temporary lapses of physical condition that cause a letdown of ordinary precautions. A quarter or even a tenth sick man is more liable to be run over by an auto, and many deaths thought to be suicide are solely due to carelessness, or to organisms that have lost their tone.[25] Many of the great leaders we might call innate geniuses in hygiene who without effort became past masters in the art of body-keeping. Many of

[25] See, for example, *Mental Causes of Accidents*, Boyd Fisher, Boston, 1923, 314 pp.

them, especially those with some flaw in their heredity, developed a most acute consciousness of every degree of difference between 90 and 100 on the scale of wellness, of which most of us know almost nothing but which we must learn to distinguish if we are ever to really do ourselves justice in the world. Half of the preparation for every great effort is training for condition.

(2) Second breath. This second test is far less recognized. Much of the world's best work has been done by men in a certain state of mental exaltation akin to what athletes call the second breath. Perhaps we work long, hard, or past our usual hour of sleep at night and then find ourselves gradually reinforced, our work grows easy and does itself, and it is hard to stop. There is unusual clarity, celerity, and facilitization. We seem to have tapped some new source of reserve energy. We experience a kind of afflatus which the Greeks called the visitation of the muse that comes at our wooing and which the early Christians called the visitation of the Holy Ghost. It was this wrapt state called inspiration in which the Scriptures are supposed to have been written. James saw it in part and called it the development of the higher powers of man. Psychoanalysis has shed much light upon it and deems it mental erethism, the psychic vicariate of sex and its highest form of sublimation. It is the harnessing of the older, vaster, unconscious part of our psyche to help us on to our consciously chosen goal.

It is curious that all the great cults of history as well as those of savage and prehistoric times have sought this state by many procedures—solitude, fasting, great hardships and perhaps tortures, excessive exertion like frenzied dancing, etc. Sometimes very ritualized ceremonials have been resorted to, all to provoke trancoidal or ecstatic states. Not only pain-

ful initiations but narcotics of many kinds and intoxication have been resorted to, for inebriation was long and widely thought to bring it. Sometimes great assemblages and great occasions evoke it and there are those who hold that most of the great advances of the race have thus been made by the exceptional stimulus of gregariousness. Occasionally it comes of itself when we least expect it. Again, if you read a good history of the epoch-making discoveries you will find that very often after long lucubration or brooding on a problem, fruitless almost to the point of despair, suddenly there comes a moment of clarity and in a flash the long-sought solution stands sun-clear before the mind.

Thus I would test men by their ability to use this power aright. Some live and die and never once draw upon this precious deposit which nature has made for all of us in the bank of heredity. Psychopaths do it and thus dissipate their patrimony, and so we are prone to the great mistake of considering all brainstorms malign. Another danger is that this temporary hyperindividuation may interfere with genesis. Indeed, these experiences always bring reaction in their train and thus are dangerous for weaklings, but with sound organisms they are like storms in nature which, while they may do damage, clear the air and fertilize everything that can grow. To command this great power in human nature, as we are now learning to utilize so many of the powers in the physical world, is now a vital part of the higher self-education of the young. It is especially useful in the *circa* ten years between puberty and nubility for nothing has such efficacy for the sublimation of sex. The young must not only have calentures of absorbing interest but must at times yield to them with abandon and let them have free course, and it is during adolescence that the power to draw upon these energies can be

best acquired. It is high time that this is more adequately recognized.

They are also necessary to bring out the physiological and psychic reactions of recuperation and to give these due exercise. If we have developed this power we are able to meet the most straining emergencies by drawing not only upon all that we have or have done but upon all that our forbears were and did. After a long period of discredit we are just now realizing afresh the vastness of the treasure thus placed to our credit in the bank of heredity and learning to utilize it, not only against many subtle nervous and other disorders of our overwrought age but for greater efficiency in the intellectual tasks confronting us. Perhaps the hard examination crams which youth abhors may be of some service in developing this diathesis. The war showed that clerks and often sedentary weaklings were capable, to even their own surprise, of outdoing themselves and outlasting the sturdier muscle workers from the farm and factory, fighting on in battle when the others were all in, although when at last they did fall spent their recuperative powers proved slow and inadequate; and hence they were easier victims of war shock, which meant flaccidity or loss of neuropsychic tone.

This scale is a long one with many degrees or grades but it is sure of a permanent and very important place in the diagnosis of character, and especially in its formation. We must not forget that a uniform day's work is a very novel thing and that during most of his long life upon earth man has done everything in a spurty way—now inert and lazy, now hunting, fighting, and perhaps later planting and harvesting in a way to tax his powers to their uttermost, and that it is this diathesis that impels him to orgies of having a good time. The young, especially to-day, must have periods of excitement to bring out their

powers, just as infants must have crying spells to develop voice, lungs, and heart and to evoke the powers of recuperation. So I must know the calentures of a young man, inventorying to this end not only his ardors but even his interests and not forgetting that this discipline, necessary as it is for those who are to evoke all their powers and do great things, is perilous for all neurasthenics.

This is the state in which mystics rise to direct communion with the Divine, as Plotinus is said to have done nine times in his life. It is Plato's divine afflatus, Wagner's "in heat" when he would see no one, the state in which many writers like Dickens were quite carried away by their theme, in which Swedenborg and, to some extent, Strindberg did much of their best work. It is a godsend in crises and emergencies, and yet we are afraid of it. The tedious phrase-maker, Chesterton, disparages it, but Mencken comes convincingly to its defense. In fact, all artists and brain workers have a mettlesome Pegasus in their stable which, if they can only break and learn to ride him safely, saves them many a weary walk. "Unless above himself he can erect himself, how mean a thing is man."

(3) Free mobilization up and down the pleasure-pain or algedonic scale. This scale is a very long one extending all the way from despair and suicide up to the most transcendent happiness. How this rutty old world needs more mobility up and down it so that reaction from either extreme toward the other may be more assured! Here is where the soul of man most often splits asunder. How our mental horizon and everything in it changes when we pass from a sad to a joyous mood, or *vice versa!* In all cases of dual personality one is somber-hued and the other bright, and extreme moodiness shows that our personality has begun to crack and that its unity is im-

periled, and that a fission into dual personality is already possible.

As we have seen above, all initiation-rites of youth into savage totemic clans that we know of, all the ancient mysteries, Eleusinian, Mithraic, and the other ancient cults about the eastern Mediterranean, initiations to about every secret organization from the earliest times to our own day, including those of college fraternities, etc., involve putting the candidate through trying, humiliating ordeals, taxing to the very uttermost his patience, endurance, fortitude, and sometimes involving torture, and then in the end welcoming him with jubilation, perhaps feasting and bibulous joy, into full membership.

This, too, is the modulus of every romance or drama. The hero or heroine suffers every kind of hardship up to the breaking point and everything seems hopeless. Separation, defeat, ignominy, and even death seem impending or inevitable. Then the tide turns and in the end, always and everywhere, a way of escape is opened up, love wins its object along perhaps with fame, wealth, etc.

The story of the Cross is, of course, the world's great masterpiece and regulative of this experience, for this is along the line of both the soul's greatest diameter and greatest range. This Wonder-Man was put through every humiliation culminating in disgraceful death and, according to the new eschatology, with nothing but oblivion, failure, and utter defeat in his consciousness at the end. Then first came the faint whisperings, then more proofs, and at Pentecost the triumphant affirmation that he had not only risen but ascended. This oscillation, both symbolized and reinforced by the death of vegetation in the fall and its resurrection in the spring, is the best of all possible dispositional and mental setting-up exercises for safeguarding us against being permanently dis-

couraged and hopeless with melancholy if everything goes wrong, on the one hand, or being unduly exalted toward delusions of greatness by prosperity, on the other. It is a striking fact that a modification of this often very elaborate and impressive Easter service has been found very effective in the treatment of psychopaths who had lost their balance between pleasure and pain, the sovereign masters of life.

When we realize the long and tedious pains which in ancient and age-long cults Mansoul has taken to give itself this elasticity of rebound or to be happy and sad aright, to be able to react from the wide extremes of optimism and pessimism, it seems strange that we have never thought of diagnosing and applying tests to evaluate the success of these age-long efforts to temper the soul for life. We do know very much of the effects of joyless lives upon children but much less of the dangers, no less grave, of too much gratification or too prolonged or unalloyed pleasures. Prosperity is just as hard to bear and just as dangerous as adversity and perhaps more so. Nations and civilization itself have lately been mobilized by the war on this scale and we may sometime be able to measure the fluctuations up and down it. Dying and rising with Jesus gives an immunity bath and is a regulative which may change our natures from the brittleness of iron to the elasticity of steel. The old Stoic maxim, "Accept the inevitable with joy," hints at this psychology of the cross and the crown. It is a deep instinct of human nature that exceptional pleasure or pain must each be compensated by adequate dosage of the other. *Wer nie sein Brot in Sorge ass, erkennt Ihr nicht Ihr himmliche Gewalte.* And, on the other hand, some, if widely isolated, experiences with ecstatic joy polarize the soul aright on this scale. Great men who have often entered the heaven of high success, like Dante (as Maeder has

shown), have gone through hell to get there. Moreover, education began in these pleasure-pain initiations of adolescence, which was long the core of all training, and has spread to other and more intellectual disciplines both up and down the age scale as civilization advanced. Relics of it seem to be inexpugnable from human nature and even the teasing of younger by older children, which is to test and lower both the cry- and the anger-point, is a vestige and has given a great impulse to toughen human psychic fiber.

(4) Sympathy. The next standard by which to measure human quality has had universal recognition but many names. Confucius summed up his teachings in the one word "reciprocity" and formulated a negative golden rule which Jesus made positive as the basis of His ethics. Buddha made pity for the sad estate of man the motive of his great renunciation. Aristotle and Cicero called it friendship and made it the basis of morals, as Plato did of the state itself. Paul called it charity and Jesus, love. Adam Smith, Darwin, and Sutherland named it sympathy; Comte, altruism; Renan, the enthusiasm of humanity; Kropotkin, mutual aid; Matthew Arnold, humanism; Giddings, consciousness of kind; Trotter, the herd instinct going back to animal gregariousness. But there is a wide-ranged identity in all of these concepts, and sympathy or the power to feel with and for others seems to me the best designation.

The Cro-Magnons had it, as the Neanderthal man did not and so vanished before them. It is just this that the criminal, the egoist, the profiteer, the irreconcilable who cannot compromise or do teamwork, the undesirable citizen, the man always insisting on his rights and forgetting that every right must be created by a corresponding duty, the soulless corporation, the public-be-damned capitalist who regards labor as a

commodity, the striker who feels no responsibility for the interests or comfort of the community—in a word the man who is dominated by selfish personal interests—lack.

Here, too, the scale of merit and demerit is a very long one and it is often hard to separate the sheep from the goats. One young man chooses a vocation in which he can get, another that in which he can do, most good. In social gatherings one would monopolize the distinguished guest while the other is concerned for the stranger and the wall-flower. One always wants to see the other side and feels that to know all would be to forgive all; the other admits no excuses in those he condemns.

Thus, there are morbid extremes both ways. The patheticism that agonizes over the sufferings of animals that are killed for food or domesticated, the ultra-pacifist who deems war under all conditions too horrible to contemplate illustrate one extreme, and the disciples of Stirner or Nietzsche who would subjugate or annihilate all inferiors represent the other.

Now, evolution, even in its antique prelusions and especially since Darwin, has vastly broadened and intensified sympathy with all that lives, for we realize that not only all men but all animals are branches from the same ancestral trunk and therefore are, in a sense, blood relatives. But what I would here most stress is the fact that mobilization up and down the evolutionary escalator is now seen to be one of the cardinal criteria in evaluating human character. Genetic sense or the vitalistic category of *werden* is, in men of true sympathy, so strong that they *have* to believe not only in anthropomorphization but in animism, if not, indeed, in hylozoism. This gives us a new orientation toward both origins and destinies and shows us that the highest knowledge of anything is a description of its evolutionary stages.

Those who lack this sense have lost rapport with childhood, even their own, and with arrested and undeveloped souls everywhere. To maintain this vital contact is essential for all teachers and leaders of men or for success in literature, art, poetry, politics. Here one must know how life and the world seem from under the smallest and thickest skulls. It is the secret of the charm of writers like Goethe, Tolstoi, Dickens, Hugo, and Strindberg. It anticipates, too, the condition of old age and provides for it in advance. Better yet, it enables us, when the problems of life become too hard, to retreat or regress to a more juvenile point of view and flee for a time from reality without the danger of becoming permanently arrested, like dementia praecox cases, but rather to be refreshed and reinvigorated as by an Antaeus touch of mother earth and to gain strength for a fresh advance, which thus gathers to itself a new supply of momentum from the whole upward push of the *élan vital,* which is behind us all. It also makes us mindful of the needs of the countless generations of men yet to be born.

Thus, as Einstein's quintessential teaching is that time is the fourth dimension of space, so this instinct for evolution, which gives a new and vaster historic perspective to all things, is the fourth dimension of man-soul. It renounces the old quest for ultimates or elements as bootless and is not ashamed to be frankly agnostic concerning them. It regards the direction and measurement of tendencies and of well-constellated groups of traits as the highest form of the knowledge of himself possible to man, and also gives us the normal attitude toward those below us, namely, to help them to evolve and advance; while to all above and beyond us we become docile and aspire to attain their higher levels. It thus keeps the freshness of springtide in the heart at all stages of the *comedie humaine.*

Men differ here incalculably. It is one trait of inferiority in young men to be so intent upon the present that they can make no sacrifice of it to prepare for adult life, having lost or never developed the power of prevision, while they are still less concerned for the welfare of generations to come. Their sphere of knowledge is determined by their present, perhaps material, interests and they grow up to be bad citizens, and worse patriots; and their religion, if they affect one, is an inexpensive life-insurance policy against annihilation or future pain when the grave closes over them. It is a profiteering flier with the chance of getting the largest profit from the smallest investment, and they abhor evolution because it discounts the high valuation they put upon themselves.

The Chinaman, if he has to flee from reality, finds surcease from worry and reinvigoration by contemplating his ancestors and exulting in their virtues and successes. But the principle is essentially the same when the overstrained city man goes back to the farm of his boyhood and reverts to the simple life, getting into close contact with mother earth, children, and animals, and giving way to all the inherited reactions of the human soul to the fresh and first-hand impressions of nature.

(5) Love of Nature. We have forgotten that out of this sprang nearly all of the old mythologies, which express man's first effort to know his world. The phenomena of the heavens—the sun, moon, clouds, wind, stones, rain, heat and cold, fire and frost, mountain, sea, the death of vegetation in the fall and its revival in the spring, seed time and harvest, the traits and habits of animals, which have been now hunted, now domesticated, now worshiped; the twin mysteries of life and death—these were their ever-recurring themes. Everywhere love of nature came slowly,

casting out fear. Even astrology, the mother of astronomy, was at first purely humanistic because the stars, men thought, ruled human destinies; while alchemy, the mother of chemistry, was, as we now know, a quest not for gold but for the *summum bonum* of which gold was only the symbol, which was the successful extraction of the soul from the body by subtle distillations, thus proving its surviving power.

Psychology, too, began with the knowledge that the hunter and then the domesticator, shepherd and breeder, had to have of animal life, wherein human qualities are writ so large that even the child may read, as the old bestiaries and animal eposes show. Then slowly came the sciences, all of them at first cultivated by lovers of nature in her various aspects. The ancient star-gazers so loved the planets that their very souls were drawn upward and their cult was the basis of several of the great religions. The old herbalists found all human qualities in the flowers, shrubs, and plants, as the popular names of so many of them testify. Trees were objects of druidic worship and in the qualities of plants nearly all cures were found. Even Linnaeus, the founder of modern botany, felt all this. So did Buffon for animals. Love and awe, then worship, then cold objective study, is always the order.

Poetry and art as well as religion and science also have their roots in the love and wonder Nature inspires. Without fine subtle feeling for Nature in her various phases both would be crippled, as Biese has so well shown for poetry. City life has too often aborted this love, even in children, whose natural home is the country, so that, as surveys have often shown, they know very little of even the most common phenomena of nature and this impoverishes the very soul as well as the soil from which all these

culture products grow, as only those with genetic insight can understand. Thus, without love of and a deep, strong feeling for Nature, science, religion, literature, art, and a right conception of man and his place in the universe are and must remain imperfectly developed and somewhat factitious.

The young people in Germany (*Die Wandervögel*) organized to travel in groups and on foot during vacations through the best scenery of that country, slept in the open to get close to it, and sought to rebase their patriotism upon the love of the physical features of their country. As clergymen of old used to appeal with pointed finger, as if to each one in their audience, asking, Do you and you really love the Lord? so I would ask every person whether he really loves Nature, *natura,* the about-to-be, out of whose heart we all sprang and to which we shall return. It is not far from Nature to Nature's God.

(6) Sublimation. Teeth, lips, and tongue were developed and at first used solely for seizing or masticating food, and out of these functions have evolved the higher one of articulate speech. The hand was once a foot, then used for prehension and later for all kinds of manipulation. The senses were originally to warn of danger or to find and test food; hence their location near the entrance of the alimentary canal. If there be anything we can properly call hunger for truth, righteousness, or a larger life, it is a sublimation of the food quest.

So anger began as blind, bestial, vindictive, destructive rages and was sublimated by repressions and the development of stated punishments, and the duel and even warfare were bound by codes. We cannot and should not eliminate anger but may be greatly and righteously angry at abuse and injustice, and some learn to penalize those who injure them or affront them by the long circuit way of surpassing

them in good deeds or superior attainments and achievements by way of revenge. Man owes much of his aggressiveness to wrath and must give it ever more deliberate and fuller scope and more momentum, but on a constantly higher plane. He cannot be too angry if he is angry aright.

Fear, too, began as a convulsive effort to escape anticipated pain; then it devised manifold forms of protection, shelter, insurance, medicine, and ever wider prevision, for the progeny of fear are very numerous. In a sense fear is the beginning of wisdom and man owes many of the best things in his civilization to timorousness and to his ability to fear aright, while many psychotherapies consist in simply reshaping morbid phobias into wiser forms of expression.

Love, too, began on the physical plane and its lowest level is very bestial, especially in man, whose fall was simply the hypertrophy of this function which we now know definitely due to (*a*) the upright position, (*b*) the manipulatory power of the hand, (*c*) clothing and control of fire, which extended the mating season the year round. This made man the lover *par excellence* in all the world. This is a power which, if rightly sublimated, produces many of the very choicest qualities possible to man. Even in the animal world it finds higher vent in all the secondary sex qualities, the description of which occupies three-fourths of Darwin's *Descent of Man,* producing rich coloration, nuptial plumage, wattles, ornamentation of many kinds, etc. It impels to stridulation, vocal and musical performances, courtship antics, and makes pugnacity and arms it with the weapons of offense and defense in the mating season.

We now know that with modern civilized man at least some ten trying years must pass between puberty, when savages mate, and the age of nubility

best for eugenics, while our complex institutions always tend to add years more to the period of youthful celibacy. But this sublimation, although it is very hard, is the chief function of this unprecedentedly critical decade of life. So many of the higher powers of man are sublimates of this instinct that success or failure in this process has always and everywhere been regarded as one of the chief criteria for the estimation of character and one of the best scales on which to measure the degree of its development. When we are able to test and grade instincts, enthusiasms, and ambitions, we can rate the degree of sublimation here, and it is just this process that dissipation saps. It robs life of glow and produces indifference instead of enthusiasm.

During these years particularly the soul has to glow. It craves excitement and must have it, and if the school of life cannot supply these on higher levels they are almost certain to find vent in lustful proclivities. If you want to predispose to this, rob life of deep and strong interests, and make it dull and mechanical drudgery. The quintessence of the lately much discussed sex education is that every real interest sets a back-fire to lust and in this simple fact lies the gospel of the whole matter.

Not only is man the lover *par excellence* of the world but it is of the utmost pedagogical importance to realize that nothing in the world is so plastic, has so many forms or surrogates as love, and that is why it can raise man to his highest estate or drag him down to its lowest. Eros must have fervors and raptures and these may be for the good, the beautiful, and the true, or for their opposites. That is why this scale is perhaps the best of all on which to measure the degrees of human evolution. At any rate, the higher anthropology culminates here and religion, when it really lives in the soul, here gets in

its best work, namely, as a regulator of that passion which with no control slowly extinguishes the torch of life in families, generations, and nations. The problem here, then, is to find and utilize vicariates. How far we love aright is thus an even better test of human metal and temper than how far we fear or are angry aright.

Some determinations here are now possible without detailed psychoanalysis and psychological instinct (for there is such a thing born rather than made) can pretty surely detect undue sexual or other leakage. Here belongs what I call the adolescent romance and all the golden idealism, and the old and now too often forgotten morality of repression and self-control which is its condition. Regimen here begins in physical culture and culminates in the cultivation of interests, the number and intensity of which are the best results of sublimation, while indifference is the best sign of moral error in this domain.

(7) Activity vs. passivity. In nearly all the studies of character of the last three or four decades which have stressed or at least listed not a few hundred human traits there is one and only one grand distinction in which nearly all students of the subject more or less agree, that is, that there are two classes of men, the leaders and the led, the active or the passive, the doers and the knowers, a distinction which the Germans represented by *können* and *kennen.* The Greeks thought knowing was halfway to doing and a virtue in itself without performance, while our morality holds that to know duty without doing it only augments guilt.

All nerves conduct either outward from or inward to the centers. They are afferent or efferent and so now we hear of centrifugal or centripetal characters. This distinction is essentially that between Jung's extrovert and introvert type of thinking, between

James's tough and tender minded, Nietzsche's Apollonarian and Dionysian, Freud's sadist and masochistic, Webb's and Spearman's distinction between character and intelligence, Bryant and Goldthwaite's carnivorous and herbivorous type of mind, Weiningen's male and female, some think between long and broad heads, between the artist and the critic, Wagner and Nietzsche, Charlemagne and Napoleon versus the Hamlet type, hysterics and dementia praecox cases, between Alexander the Great and his teacher, Aristotle; between the makers of history and the writers of it, between the United States and India, between the west and the east, materialism and idealism, pragmatism and solipsism.

Some men have too much intellect for their will and some too much will for their intellect. We too often see changes in individuals and nations, alternations from one type to another, for example, when a college professor becomes a president. We saw it in Germany in her change from culture to *Kultur* after 1870. We see it in legislators who become executives. Our educational system in recent decades has become less noetic and more efficient, and performance tests are increasing as compared with those of mere intelligence. This country has been in the past very largely a land of doers. Our activity has not been sufficiently guided by knowledge, as indicated in the 13,000 annual business failures.

Now, few races or individuals are equally great in theory and achievement. Some are more subjective and others more objective, and some greater in thought and some in action; but most are disproportionately developed in one or in the other direction. They evolve great sagacity as to what they or others should do but lack energy to do it, while others rush prematurely to the execution of ill-formed plans. The great scholar is very rarely an executive, and captains

of industry lack patience to be sure they know everything that can throw light upon their problem before they act, and are especially uninformed and inconsiderate of the human factors, which are the hardest to understand and adjust to.

Of course no one is purely either noetic or conative but it is always a question of the predominance of the manifold trends that compose our personality that is in point. The scale of disposition here is a very long one, extending all the way from abject subordination to the lust for power or dominion.

There are often oscillations here in all of us—now we are fallow and receptive and anon there is an outburst of activity. After submission to oppression and persecution men revolt and become themselves persecutors. Alternations here, as Magnan has shown, are very typical in cyclic insanities. These rhythmic alternations in all their polymorphic shapes are ebbs and flows of the great tide of life which all of us have experienced, but the habit of the one who is prone to look within and the other who is prone to look without are fundamentally different. One accepts the environment, the other would reconstruct it. The one speculates, the other accomplishes. A good diagnosis of men in this respect would have the greatest value as an appraisal, not only of vocational fitness but of success in the larger business of living. Only a few great men of history have been able to amplify both these fundamental impulsions and combine them in due proportion.

(8) Loyalty or fidelity. The last of this octave of trait tests here considered constitutes another real unit-character of the psyche although it has as many varieties as it has objects. First of all, of course, comes loyalty to our own deeper selves, to know which is the quest of all seekers after supreme wisdom who really wish not only to know themselves, as God Him-

self does, but to be true to their deeper selves in all they do. As we have seen, the majority of mankind fear this knowledge and avoid the conduct to which it impels, and devise manifold ways of self-estrangement. Indeed some develop a phobia for the mirror of all tests, resist self-analysis, and prefer to wrap themselves in illusions, so that to be rid of these often brings astonishing cures of body and sanification of mind hardly less marked than those of the old fashioned conversion. Still Shakespeare was right, "To thine own self be true, and it must follow as the night the day, thou canst not then be false to any man." Thus loyalty to self conditions all other loyalties and enables us in living from within outward to do so with the momentum of all the evolutionary process behind us. This is the idea of conscience, which is so often perverted.

Then there is loyalty to parents, mates and offspring, all our other selves, to friendships of the same sex, which in classic days before the rise of romantic love was thought to be one of the supreme virtues and which Aristotle and Cicero glorified. Among even criminals it makes "snitching" or "double-crossing" the most unpardonable of all offenses. Virtue is loyalty to what we deem right, conviction and belief is faith in what we think true. Patriotism is loyalty to country, good citizenship to the community and all its beneficent *mores* and institutions. It is fealty, dependableness, the first product of the herd instinct, and the condition of all teamwork. It makes men true and faithful to the causes they espouse and lays its heaviest ban upon spying, welching, betrayal, and treason. It gives a social integrity for which all guile is impossible. Science is loyalty to the universe and its laws. It is the taproot of whatever fealty we have for the churches, educational institutions, fraternities, or communities which we voluntarily join and to the

leaders we elect to follow. It is allegiance to our group and subordination of self to its service. It involves not only capacity for teamwork but devotion to some cause which is above our own personality and which we could die for as well as live for were that necessary. *Majus amicus Plato sed majis amica veritas.* "Unless above himself he can erect himself, how mean a thing is man."

It, too, has many grades of sublimation, from the loyalty of partners in crime all the way up to Seneca's loyalty to the universe which was the capstone of his ethics. Whoever is more loyal to country than to humanity will proceed to become more loyal to his party or sect than to his country, will come to place his own interests or business above those of party or creed, and will end by loving himself best of all.

Martyrs were loyal to their creed and their blood is the seed of the church. The loyal man loves truth though it contradicts him; and justice though it condemns him. It is the lesson, too, of the hive and the formicary, the very oldest if not in some respects the best of all social organizations. It is, of course, always and everywhere the good citizenship that never fails to place public above private good. It recognizes authority from which it will not revolt.

These eight are the standards by which I would measure the cardinal traits of character and disposition and by which I would calibrate human nature, including feeling and will as well as intellect. Each of them is a complex constellated of more elementary components but each is a true *e pluribus unum* and may be treated as a generic as well as a genetic unit trait. Excess or defect here constitutes the prime determinants of success or failure in life. Such tests cannot be applied to large groups or with time limits, but require careful individual observation and analysis and the weighing of many items from many

sources. We have no accepted methodology as yet for such work, but innate psychological common sense is already finding orientations here and it is in this direction that the way is already opening for a far better estimate of the more fundamental traits of human nature.

We already have many analyses of the requirements of many a job but these are generally made with a view to fitting men to each, just as of old children had to be fitted to the school. But here, as there, we need the same Copernican revolution which the school is undergoing and ahead of us lies the larger and far more beneficent task of fitting the job to the man because human nature is vastly older and shares something of the persistence of the laws of physical nature.

None of these are specifically tests of intelligence although all involve it. They rather deal with the noncurriculizable type of intelligence with which present-day schooling has far too little to do. On these scales the degrees of development of nations, races, and historic periods can also be measured, as well as those of individuals. Nor does it make the least practical difference whether the trends here sought are innate or acquired. Both factors are of course involved in all of them. Perhaps the chief validification of each one of them lies in the fact that all have been recognized more or less clearly and striven toward more or less definitely everywhere and always by all races and throughout all history. Thus they really conform to the venerable rubric by which the early church sought to formulate its fundamental beliefs which were or must be held, *Semper, ubique et ab omnibus.*

Again, if I am right, we come to a new realization of why it is so hard to specialize in such a vast field and also how important it is to lay a broad basis for

our pyramid. "Knowing something of all that is necessary and at last all of something" has its unique application here. The great world yet lies in darkness regarding man's nature, origin, and the regimen of life. Rank superstitions still flourish here as nowhere else. Men blindly follow old creeds and observe outgrown *mores,* chase one partial light after another, are victims of slogans, and creeds, revive mystic, antique cults which even their leaders only half understand, or perhaps roam the world like Jurgen in aimless quest of an ideal nowhere adequately embodied, and grope as mystics or agnostics instead of finding the deep joy of really living in the affirmations that make life a victory and not a defeat. It is pitiful to see how persistently man looks without when he should look within, not only for the conduct of life but for salvation, or to realize how wont and even contagion determine his attitudes, opinions, and habits; how subject not only the ignorant masses but the half-cultured are to brain storms like spiritism, fundamentalism, Ku Kluxism, A. P. A. and bolshevik agitation, fascisti propaganda, the mad impulse for profiteering; or how easily fanatical sects arise and flourish—all because extreme views are easiest. Perhaps if we had a just and true sense of the difference between the normal and abnormal we should have to judge the world to be sick or insane, as Jesus and His early followers conceived it to be sinful. What we need is a new mental and moral hygiene that shall give us higher ideals and standards of sanity, both individual and social, and a new philanthropy in the broad literal sense of that word which makes it almost, if not quite, identical with what Renan long ago described as the enthusiasm of humanity; Paul, as charity; and the Johanneian Jesus, as love.

But the psychologist must be made as well as born and he needs an ever lengthening apprenticeship with

focalization successively in different fields—laboratory, genetic, abnormal, observational, introspective, etc. The literature in each of these fields is now vast. Each member of each group must read diligently and pool his findings for other members. The digest of books and articles in our journals are sadly inadequate and incomplete and we have no *Centralblatt,* while even our best investigators sometimes work and publish in ignorance of important articles or memoirs bearing on their subject. Moreover, even our best developed academic departments give little or no instruction upon important sections of the subject, while many courses are too prematurely special for the greatest profit to the generally immature stage of even our graduate students. On the other hand, many of our introductory textbooks are *tendenziös* so that there is too little agreement as to the most important subsections and still less as to where to begin. Some of them, too, indulge in platitudinous elaborations of the obvious and so fail to generate the initial interest that is so important for beginners. Thus, teachers of the elements have a hard task for, as one of them lately complained to me, there is not one of the some twoscore texts he looked over that does not leave one or more important domains untouched. We have paid far too little attention to the pedagogy of our subject and the efforts that have been made in this direction have only resulted in the greatest diversity so that there is little approaching the approximate consensus here that is found in introducing novices into the physical sciences.

Beyond this, the ideal leader in this field should himself be more or less acquainted with certain of the great poets, dramatists, novelists, moralists, reformers, etc., who have most influenced mankind because they interpreted and voiced its deepest aspirations, as, for example, the Greek tragedians, Comenius,

Rousseau, Goethe, Coleridge, Carlyle, Browning, Nietzsche, Dostoievsky, etc., not to mention our Bible, the life and teachings of Buddha, Confucius, Mahomet, etc. This, I know, will seem a far cry to most of my colleagues but judicious reading like this quite outside the limits traditionally laid down for us greatly enriches the psychological soil. I would even venture the opinion that Wundt's *Völkerpsychologie,* far too little known by his disciples, should and will some day be seen to be more important for the proper training of professors than his psychological textbook. I would insist, too, were I an examiner to license a professor in this subject, on a good knowledge of Darwin, Spencer, and Haeckel.

I would even insist that he should keep sufficiently in touch with current events throughout the world which to-day is the sport of psychological forces, as is now beginning to be understood as never before, and that he should attempt here and there according to his lights to draw lessons, interpret, apply, influence, and inform public opinion, and if possible, now and then, at critical moments be, if he can, the oracle of the *Zeitgeist.*

How each and every department and specialty in our field needs just now broad, comparative, synthetic viewpoints! Perhaps the time is drawing near for a many-volumed handbook written coöperatively by many representative men, as physiology has twice in its history attempted (first in Burdach's four volumes in 1848 and later in Hermann's encyclopedic digest and epitome of physiology in eight volumes (1883) wherein each subtopic was brought up to date by the expert best qualified to deal with it).

The histories of psychology that have so far appeared become partial and doctrinaire as they approach the actual present, which none of them really reach and to come abreast of which in all its domains

would require an erudition, a range of sympathy, and an impartiality which none of us has yet attained. In fact, the historic spirit is yet lacking here, and that for several reasons. Partly it is because the development has been so rapid and so recent and partly because it has been along such diverse lines that no one is broad enough to rise above all prejudices and rivalries or even jealousies, both group and personal, so as to see all the data in their true perspective. Perhaps it is not too much to say that probably no two psychologists would agree as to the definition, scope, legitimate methods, the point with which teaching should begin, or the sequence and relative importance of topics. Never in the history of the sciences has there been a stage in any of them (with the possible exception of present-day sociology, if that can be called a science) in which along with great activity there has been such diversity of aims, such tension between groups, and such persistent ignoring by one circle of workers of what is made cardinal by another (for example, the psychoanalysts and the introspectionists). Perhaps these differences only mirror the present-day disunity and disharmony of the human soul itself, individual and collective, and it may be that a stage of redintegration for both will come together, just as the process of dissociation for both did. But the amplification and justification of these views belong elsewhere.

Meanwhile we can rest certain of one thing, that henceforth the great problems of mankind and of modern civilization, on the one hand, and those of psychology, on the other, are coming into ever closer and more vital rapport with each other. We can never determine what is man's fitting estate until we know his true nature and we are perhaps equally far —just now it would seem very far, indeed—from the goal in both these quests. But despite the many un-

precedented difficulties and grounds for discouragement I cannot resist the optimistic conviction that we are steadily approaching a true and real trail and that, on the whole, it seemes to slant upward.

CHAPTER IX

SOME EDUCATIONAL CHANGES IN MY DAY

Changes in teaching reading, writing, and spelling—F. W. Parker—Slang—Changes in what children read—Number work—Grube—Progress in geography, in history, gradation, drawing, industrial training, music—The district school as I knew it—Programme—Punishments—The story of the public high school—Its period of enslavement to the college and its progressive emancipation—The dead and modern languages—German ideals—Philosophy and the normal schools—Hegel and W. T. Harris—The kindergarten, Miss Blow, and others—Montessori—Herbartianism—John Dewey—The recognition of paidology as normative—Ebbinghaus—Intelligence tests and their limitations—Sloyd, manual and vocational training—School gardens, the garden city, and agriculture—The education of defectives—The treatment of juvenile criminals—Boy scouts—Training of elementary teachers—Normal schools and academic pedagogy—Associations with parents—The influence of women—Teachers' organizations—The N. E. A.—Summer and correspondence schools—Hygiene—Teacher does not teach—The weak point in our system—Size of our educational system—Its inefficiency—Discontent of students—Why the war is not taught—The calamity of godless schools—The mistake of introducing physics instead of biology into the high school—The supreme educational value of evolution—Crying need of a higher educational statesmanship—Progress in medical and legal education and the obstacles to advance in theological training—University progress—Association of American Universities and other academic interinstitutional organizations—The proposed national university at Washington—The Sterling-Towner bill—National Academy of Sciences—American Association for the Advancement of Science—National Research Council—The age of exploration ended and a new intensive study of man in order—Our chief present need a deeper knowledge of human nature—Man vastly older than his industrial or political environment, which no longer fits him—Research the center and culmination of the creative impulse—Its psychological root—The apex of our educational

system should no longer be in Germany but we should lead in the world of science—The university invisible and considered as a state of mind.

The history of fashions or of religious belief shows hardly less conflict between innovators and conservatives, heresies and orthodoxies, or more changes of both matter and method than those which have taken place during my lifetime in this country in the field of education. The briefest mention of those changes in this wide field in which I have been interested, beginning with those of the lower grades, will give some indication of the transformations that have occurred within my memory.

I note first those in reading and writing. Once this began most logically and with the elements, that is, the form and name of the printed capital and then the small letters in their alphabetic order. Then came their simplest combinations in monosyllabic words of two or three letters, including often those that did not make words, *a-b = ab; b-a = ba,* etc. We began writing with the printed forms in large letters and then the small before we attempted a cursive hand, and learned spelling in the old-fashioned way of Webster's Speller, of which nearly two million copies are said to have been sold during its career. Here were long lists of words of similar length, form, and sound, some of which were no words at all but which were conned by loud whispering for the spelling lesson. Then came words of two syllables (lady, shady, baby, baker); then those with three, etc. With the Primer, children spelled and then pronounced each word aloud and later whispered the spelling.

The first effective challenge to this method was the phonic scheme. *C-a-t* did not "spell" *cat* but *ce-a-ty.* And so we analyzed the word into its component sounds and then combined them, and because a number of letters stood for different sounds the

phonic primers modified their form so that there were some fifty letters and the names of each tended to lapse from consciousness. This brought much gain, and the crudities and extravagances of the scheme were soon toned down. It has now its fullest and most effective installation in the schools of France, with elaborate phonic charts and drills.

Then came the write-reading method, for the importation of which from Germany, where it originated, F. W. Parker was chiefly responsible. Instruction in the vernacular now began by writing, not printed but script forms of a few so-called normal words which together contained all the letters of the alphabet and began with small *m* and *n*. Not books but slates and, far more often, blackboards (often permanently ruled) were now needed, and writing and giving the sound of each letter were central while its name was kept in the background. Where and when this method was at its height I have been told by librarians that children in the eighth or ninth grade could not repeat the alphabet and were helpless in finding what they wanted in card catalogues or in the dictionaries. Writing paper slowly took the place of slates and the eye and hand supplanted the ear and mouth, where in fact language lives, moves, and has its being. But script was at first made far larger and there was a preliminary air-writing from the shoulder, which was legitimate for the avoidance of writer's cramp, and the use of the old copybook was forgotten. Vertical script, however, brought it back again. The old "slant-writing" was first condemned as causing faulty postures and attitudes, and scoliosis. Extremists told us that verticality was a pregnant symbol of uprightness of character while tipped letters made for instability. The new script was open, honest, and involved less eyestrain; while some advocated inaugurating it by a preliminary drill in back-

hand writing. This ultra-fashion, however, slowly passed and a so-called normal angle was adopted. Now that the typewriter has come in, even compositors seem slowly losing the power of deciphering handwriting, too much precocious stress upon which has caused many people now in middle life to write badly. Now, too, we have scales by which the merit of script can be graded in half a dozen degrees, as we also grade spelling, sentence structure, number work, etc.

That our children of from ten to fourteen differ in their ability to speak and write the mother tongue, as compared with those one or two generations ago, we have manifold conjectures, but the several comparisons I can find seem to me inconclusive. My impression is that the children of to-day can describe things and happenings better but are far less articulate in stressing their personal reactions to them or in expressing their ideas or feelings. There is an enormous increase in the use of slang, despite its taboo by the school as detrimental to established usage and convention, for it is more free and picturesque. Slang is the *lingua franca* of children and youth and fits their type of psychic activity as nothing else does. The introduction of foreign languages into the high school, although it has helped to a better knowledge of English has brought deterioration and carelessness of style, for translation English is a thing apart. The school to-day is doubtless trying to increase the vocabulary but there seems to be a wider gap between understanding and using words. The young student to-day has little of the old impulse to introduce into his writing all the new words he learns.

Reform in spelling, despite the efforts of its devotees and the reasonableness of it all, has made relatively no more headway in the schools than did Volapük and Esperanto, and it is somewhat radical

for a school system or publication to adopt even the dozen words suggested as the entering wedge of the reform.

As to what children read, changes have been perhaps even greater. Sixty years ago there was very little children's literature in this country save "goody" and religious books, mostly found in the Sunday school libraries, and two juvenile weeklies, also with a strong religious trend; and little wisdom was shown in selecting the contents of the school readers. Now the quality of the latter has improved and their scope enlarged, and there is a vast body of juvenile publications of all sorts, while many large libraries have children's departments. No country, save Germany,[1] has made any comprehensive and effective effort to standardize or grade the merits of juvenile literature, but we have most instructive statistics as to what boys and girls actually love to read at different ages. We knew the Bible far better than does the average child of to-day. In the city, in which the majority of children now live as they formerly lived in the country, although there are better opportunities to read there are far more distractions that prevent the young from doing so, while the development of the movies has materially diverted them from the use of books, although the former have had far less effect in increasing juvenile crime than had been predicted. Their worst effect upon the young has been to give them a precocious knowledge of sex and to shorten the period of innocence. While their vast educational possibilities, almost rivaling the invention of printing, have been recognized by a few, the efforts in the development of these possibilities have been so far too ineffective. The bookish child may be abnormal, but the school could and should do far more than it has

[1] See my *Educational Problems*, vol. 2, pp. 470 *et seq.*

attempted to cultivate not only a knowledge of what good literature is but some taste for reading it, for if the habit of reading is not developed in the teens, probably in the early teens, it very rarely comes in subsequent life.

In number work the past two generations have seen marked changes. In my boyhood mental arithmetic held the chief place. We memorized the multiplication tables forward, backward, and skipping-wise, and performed all the operations possible upon all small numbers, squaring, cubing, fractioning, as well as adding, subtracting, multiplying, dividing, and doing sums in proportion, with many exercises in concert for the whole school for those who were mature enough to join in them. When written work came it was very much normalized, with rules to learn by heart, and the sums contained often prodigiously large numbers. It was assumed that numbers applied to everything that could be counted, and supreme attention was given to number relations rather than to their applications. In the "sums" of the higher arithmetic many processes were performed laboriously which a little knowledge of the elements of geometry and algebra would have enabled us to solve far more simply and with more understanding, but of these devices we knew nothing.

Then came the Grube method, by which everything was done with 10, then with 20, then 100, etc. Then came the method of counting forward, backward, and skipping-wise, that is, by two's, threes, etc. Then came the measurements system, and we have always had with us the effort of reformers to introduce the decimal or metric system in place of our antiquated tables of weights and measures that had to be memorized. But despite the fact that our monetary system is computed on this basis little progress has been made here. Then followed the more

recent comprehensive effort to find just how number work, which had been greatly exaggerated in our school, was done, as a basis for establishing a more rational, effective, and unitary system for all schools and to break down the wasteful arbitrary distinction between the different mathematical branches, hardly less arbitrary than the rigid logical distinctions which were so long maintained between numeration, notation, and the four "species." These reforms, when fully effected, will reduce the excessive time which in this country is given to skilled and practical computation, although even yet there are grave complaints of the ineffectiveness of school-trained pupils in all the accounting professions and their ignorance of all the modern methods which these have brought into use.

At the extremes we have had, on the one hand, the attempt to eliminate formal arithmetic and to make all number work incidental to other disciplines, introducing it into botany, zoölogy, civics, geography, and even history; while at the other extreme we have had texts in arithmetic that were purely and from the start commercial. But both these efforts left little permanent trace. We have never in this country made much use of the many auxiliaries and forms of apparatus often found in European schools—abacuses, many forms of counters, illustrations of weights and measures, adding and other computing machines, magic squares, implements for geometrical drawing, etc., although the pupil is taught the use of the ruler and shown charts illustrating the metric system. In general the American pupil leaves school with little or no acquaintance with the many helpful manipulative devices found in our Pedagogical Museum and so common in Continental schools, and is rarely brought to feel the mystic charm of pure number relations.

In my boyhood, geography, always taught from

Mitchell's lower and higher texts and atlases, gave us our only glimpse into the field of science. After an astronomical introduction—always helped out by a globe on the teacher's desk, with some explanation of day and night and the seasons, which for older children by several enthusiastic teachers was reënforced by star-gazing through a small telescope and by a map of the celestial constellations—we were taught something about the five races of mankind and thus given a faint touch of anthropology. Then we were almost immediately taken to political and national divisions, which were everywhere supreme, with much drawing of maps which were usually colored. After learning the points of the compass and memorizing definitions of islands, capes, isthmuses, and promontories, great stress was laid upon "bounding" every state in the Union and most of the countries in Europe and perhaps the other continents, by way of topography.

Of every state in the country we had to learn the capital, one or more of the chief cities, the principal occupations of its people, its products, its more salient natural features, etc. A common exercise was to describe the course of the great rivers and mountains of the world, to name the chief volcanoes, to go up and down the coastlines of continents naming capes, bays, and rivers, and according to one system in vogue these were arranged in crude metrical order and set to music, which we had to sing. Chief stress was laid upon our own country, and industrial were almost as prominent as political aspects. Of the elements of physical geography there was very little.

Outside the "three r's," geography was, I think, introduced earlier, given more time, and was less disliked than any other study in the old district school. A few decades ago a feeble effort was made to introduce the German method of beginning with the school

building and widening to the town, county, state, eccentrically, and geographies with this local beginning were introduced in several centers. But this method passed and left almost no trace. One elementary humorous geography by Schultze was put upon the market, according to which, with some distortions, each state and country was given the form of a face, an animal, or some other object, with short comic descriptive poems. Lastly came the revolutionary texts of Frye, followed by Tarr and McMurray, while now what may be called the higher geography is just beginning to be introduced into our colleges and universities.

History was, so far as my memory and experience go, entirely unknown in the old district school. In the higher academies, however, it was represented by Worcester's volume of *Universal History,* which began with ancient Babylon and came down to within a generation of the then present time. Historic maps and atlases were unknown but there were innumerable dates, and especially names, to memorize, with wars and battles always prominent. I never saw a concise history of the United States until I went to college and I think it had no place in the fitting schools; nor did modern languages.

In the above staple subjects I think the children, age by age, had more knowledge than a child of the same years to-day, when textbooks have so enormously multiplied in both number and cost and so many accessory studies have found their way into even the lower grades. Of school hygiene, manual training, civics, natural history, and every branch of science the boy and girl of fourteen in my day learned and heard practically nothing in the school and, as we have seen, each town and school district was more or less autonomous. Occasionally there were writing and singing schools in the evening, conducted as private

ventures and carrying small fees. Anything approaching gradation, despite the work of Horace Mann, was long unknown in the country school, where a single teacher did his or her best for two or three score of children at all ages from six to well into or even beyond the teens.

In my boyhood we had absolutely no instruction in drawing, but this became quite general in the American grammar grades some years later, largely due to the influence of Prang. His system began with lines, angles, and mathematical curves and did not depart very far from geometrical ideals toward freehand drawing of life and action. This system became almost everywhere dominant, although finally its limitations were seen and there was in many centers an abrupt break with it and a characteristic swing to the opposite extreme. In these latter schools drawing began with complex figures of people and perhaps animals in motion. No subject was taboo that the child wished to attempt, spontaneous drawing was encouraged, and the evolutionary history of it was appealed to from the pictographs of cavemen and the crude spontaneous drawings of children. It was realized that it was one thing to draw from a copy which was constantly referred to and a very different one to put down on paper the mental image of the object. I have had several voluminous collections of the achievements of boys and girls who had not yet attained the teens who attempted to represent almost everything with pencil, crayon, and colors. Most of these are as grotesque as the collections of spontaneous things children make of wood, cloth, metal, etc., but some always stand out with peculiar preëminence and merit. It is certain that a boy interested in ships, locomotives, kites, etc., tends to repeat his performances in this field until he may acquire a rare degree of skill; and the same is true of the girl who is in-

terested in hats, dresses, dolls, flowers, etc. I for one am convinced that we have not yet found the safe middle way in this respect or learned how to utilize the interests of children in giving them the habit of freehand drawing. Mechanical and architectural drawing is, of course, a totally different matter, and here we have hit the right trail and gone far along it.

Music has had a curious development in schools. It was almost unknown in my early days and I remember but one teacher who could or would sing—she was a member of the village choir. There were in various sections of the country devotees of this art who saw, if dimly, its educational significance as the language of the heart just as much as speech is of the mind, and we had an interesting collection of songs for school and home, not chiefly religious. There were a few very popular songs which every one knew after and even before our Civil War. Lowell Mason gave the first real impulse to school music and later Holt, a disciple of his in Boston, devised a system which was austerely rigorous and aimed at nothing less than a sanctioned orthodoxy, and this was adopted in many parts of the country. The tyranny of this system, which had to be severe to break the crust of indifference, was checked by the tonic solfa imported from Cerwen in England. Some of the notes received a new name, the pupils often sang from hand gestures instead of from printed notes, and colors were introduced, so that we had adepts who sold their services to cities successively to introduce the cult of the movable *do,* which for a time widely prevailed.

Meanwhile, almost no attention whatever had been given to the character of the music itself or even to the words and sentiments which were to be cultivated. Music teachers were aghast when told that it was as absurd to first teach a child to sing by notes as it

would be to teach it to speak by a printed text, and that it was just as necessary to have a large repertory of songs learned by ear before notes were taught as it was to have a vocabulary before reading. The recognition of this limitation slowly prevailed and attention began to be given to the quality and feeling-tones to be cultivated, and the musical textbooks of the final decade of the last century showed a great change for the better in this respect, although there was still much to be desired. Too few music teachers have as yet realized the importance of the old ballads and folk-songs, the initial significance of rhythm, the relations between music and movements, especially dancing, and there is still too little use made of the phonograph, which does far more to develop the voice to sing with it than does the piano. The importance, too, of educating children to hear and discriminate music as well as to produce it, the former being to the average child vastly more important, is too little recognized. The perennial themes of music are: religion, home, nature, country, story as in the ballad, motion as in dance music, and love, and the real merit of musical instruction for the average child is to be measured by the development of these rather than technic.

From the time I entered our educational system at the age of six, near the middle of the last century, the effectiveness of the small rural school has improved but little, if indeed it has not declined. Of this I have convinced myself by lately revisiting several of the schools I first attended, sitting sometimes in the very seats I did before I was twelve. In the old ungraded, unsupervised New England country school, managed by parents and often taught by untrained teachers recruited in the district, I believe we learned to spell, write, cipher, read, and knew quite as much of geography, age by age, as does the child

in the same schools to-day. They were far larger in my boyhood and were kept always three and often four terms per year. Thus the problem of the rural school, now so long a center of so much discussion and despite all the administrative changes it has undergone, is still unsolved and there has been little progress, if not actual regression, in essentials. True, we had no history, manual training, very little music, hygiene was unknown, there were no marks save for absence and tardiness, no gradation, and no "busy work." But there was plenty of time for conning lessons if we could concentrate, and if we were caught not studying we were reproved. For the older children, books were commonly taken home for more or less evening study. Parents perhaps helped and not infrequently visited the schools, were always welcome, and especially at the closing "examinations" of each term the room was well filled with parents and friends.

Punishments included standing in the floor or facing the corner, pulling hair or ears; occasionally the face was slapped and the ears roundly boxed; in more extreme cases there was ferruling, which consisted in striking a number of blows with the ruler on the palm of the hand held open by the teacher, and perhaps trouncing with a stick conspicuously kept on the teacher's desk. Some stalwart men teachers "shook up" the boys by their shoulders till their heads seemed almost ready to snap off; and scolding, individual and collective, was with some teachers almost a fine art. Sometimes we were required, either one by one with a roll call or by a show of hands at the close of school, to declare whether or not we had whispered during the day, and some teachers kept a record of this misdemeanor and reported with praise those who had not whispered for a week. This method developed liars, whom we knew if the teacher did

not. Boys who showed too much interest in the side of the house where the girls sat were sometimes made to go and sit with them, and less often *vice versa,* and the giggling thus caused brought great mortification to the culprit. One teacher brought in the device of a dunce or fool's cap, a tall cone shaped of brown paper, which I grieve to say I once had to wear. The severest penalty was to be hauled out on the floor and drubbed with a stick on that part of the body left peculiarly exposed by the short tight-fitting "Spencer" or roundabout coats we wore. The injunction hardest to observe was to keep the hands away from protecting the body from the stick. We were generally flogged till we cried aloud and with abandon, and this I, like most of the boys, refrained from as long as possible. I shall never forget the humiliation on one occasion of having the welts in this sensitive part examined and anointed with witch-hazel by my father, who I thought felt like protesting, but did not; and I was glad for I would rather have him conclude that I deserved all I got (as he probably did) than to submit to the ridicule of my mates that I had peached or tattled at home and that "dear papa" came to the protection of "his darling boy."

The public high school was then almost unknown and came in only after a long struggle, the opposition arguing that as so few children would take the so-called secondary education it was unfair that it should be supported by public taxation. When at length the opposition was broken down, high schools multiplied everywhere at a very rapid rate and in many towns were the finest and most expensive of all public buildings. Their teachers formed associations by themselves and became more or less *élite* and had little connection with elementary instructors, yet never attempted to dominate or prescribe for the grades that preceded.

Thus the high school of a quarter of a century ago became more or less isolated. Unaffected by the education which the laws of compulsory attendance enforced and, as their number increased, intent more and more upon the work of fitting for college, their freedom from the domination of the latter has been their longest and hardest struggle in my day. The ambition of its instructors was long satisfied if they and their institutions could be called good "fitters," and many of the smaller high schools, as well as the weaker, older, yet more independent academies which were scattered over the eastern part of the country, were chiefly intent upon fitting for college rather than for life. The influence of the college upon them, especially since the epoch-making report of the Committee of Ten, was unquestionably very beneficial for a time. Standards of admission, although those required by different colleges have never even yet been entirely harmonized, were raised, on the whole, and scores of college dons wrote high school textbooks, the quality of which was thus greatly improved. But the later stages of the long dominance of secondary by collegiate education in this country have no parallel in any other land in the history of education or in the influence of any other higher upon the next lower stage of training, and this threatened at its height to become an almost unmitigated curse.

The ideal of making the high school the people's college that it should be, doing the very best possible for pupils of its age and stage and fitting those who leave as well as go on for what is ahead of them, has come to a very slow but general recognition, especially in the east, and high schools have been reluctant to take the stand, which both logic and utility suggested, of saying to the college: Here are our graduates for whom we have done what we deemed wisest and best; take them or leave them. They

would thus bring the college to terms which would in the end be for its own advantage. Colleges have, however, been more and more liberal both in the number of topics they would accept and those they would exempt in giving credits for admission, and the dead mechanism of points and standards so rigidly enforced for a time by the central examination boards is now being happily mitigated; while the junior high school movement has made everything far more flexible, open, and stimulating. The old tyranny of classic languages has been broken, high school teaching has become much more professional and effective, and most of our academic departments of education include the pedagogy of not only high school organization and administration but have something to say of that of the different branches.

The pedagogy of the so-called dead languages in the high school has been very inefficient, and we rarely see the very illuminating charts of many kinds and other apparatus that in the best foreign schools are used to vitalize instruction here. The high school child finishes not only his Greek but his Latin courses with little knowledge of classic life or history, and with almost no conspectus of the authors or even the works as a whole (of which they read a part) such as might be given by a judicious use of a good translation. The drill he receives is almost entirely grammatical and philological, and form has not only taken the precedence of but almost strangles zest for content. The ultra forms of the so-called direct method, while they have increased interest on the part of the teachers who became its devotees have utterly failed to produce the results expected in arousing interest and increasing the efficiency of the pupils; while the introduction of the so-called continental pronunciation has made Latin seem still more unnatural. Modern languages are less frequently taught by

natives than a quarter of a century ago and here, too, we have had a great variety of methods since Otto. Our teachers have not learned that incessant drill, with oral work always predominating, and hard mechanical work are the only road toward the goal of proficiency. The great reduction and often prohibition of German, as a result of the war, which was coming to be a close rival to French in our secondary education and is really becoming more important not only for practical and business life but because it contains more scientific and other culture material of value, has resulted in a great increase, especially in the southern and western parts of the country, in the teaching of Spanish because of its utilities now that we are coming into closer contact with Latin America.

As this country might be called New Europe because most of its inhabitants came from that continent, so, too, most of the more important educational movements in the new world have been importations from the old. The early settlers at Plymouth, New Amsterdam, and on the Chesapeake brought the systems of their native lands with them. Once established, there was very little change save in numerical expansion for several generations and things grew very rigid. Thus when Horace Mann, after a study of European systems, sought to introduce more gradation, supervision, teacher-training, and organization, he met with the most violent opposition from the teachers of his own state, which he was obliged to leave for the presidency of a small Ohio college.

Another wholesale importer of European, especially German, ideas, Henry Barnard, who advocated many educational reforms, was for the most part simply ignored. His *Journal,* which was a mine of information nowhere else accessible, was allowed to lapse. He was too far ahead of his time, and a belated and not very active recrudescence of his in-

fluence thirty years ago served little more than to bring a realization of the value of his many-volumed journal just as it was going out of print, so that now sets of it, important as they are for the history of education in this country and even in Europe, are very rare and costly.

If one looks over the early history of normal schools here he will be surprised to find how large a part of all the so-called theory and philosophy of education which so long prevailed came indirectly from Sir William Hamilton. His conceptions and definitions of faculties in man filtered down to the level of the minds of normal pupils and gave them the smuggest primness and complacency, and really did little more than to substitute formulated ignorance for knowledge. It is this that, strangely and unfortunately, for a long time kept all forms of associationism, which has so many fruitful pedagogic implications, from exerting much influence upon the theory and practice of education.

On the above basis of British thought have been superposed many special importations, most of which have passed through the same three phases: (1) that of rapid expansion and propaganda, with new leaders greatly to the fore; (2) excessive claims of completeness and finality; and (3) decline, although not without some more or less permanent and beneficent results in nearly every case. I content myself here with a bare enumeration of a few of those I have seen at first hand in my career. With most of these in educational lectures, addresses, and writings I have tried to come to terms and to exert my own modicum of influence on them.

The first was the Hegelian movement introduced by William T. Harris, elsewhere referred to. Few if any teachers in this country understood it and I always felt that even Harris himself fell far short

of doing so. Although he was not successful as a propagandist, for years nearly all the leaders in public education heard him gladly. They felt that here was something very profound and elemental which emancipated them from the tyranny of the old definition-philosophy and gave them *apperçus* in advance even of academic teachers of the subject. It always seemed to me pathetic to see this group gaspingly striving to comprehend these world-bestriding pronouncements, and it certainly kept them in an attitude of docility for an experience with Hegelism was, like turnips, a good *Vorfrucht* to make new soil friable and fruitful for other crops, a function that it has so often performed for our professional philosophers.

With this came the kindergarten, which Harris was the first to incorporate in our public school system and to which his disciple and coadjutor, Miss Susan Blow, did much to give an esoteric philosophy of its own, at the same time rigidifying its methods into a unique and intolerant orthodoxy from which it took long to break away. Elizabeth Peabody, who furnished the enthusiasm, and Mrs. Quincy Shaw, who for many years financed a comprehensive system in Boston, with both of whom I came into personal relations very helpful and stimulating to me, were centers of a large and growing group of enthusiastic women who saw in it a new power in the educational world, felt that its methods should pervade and transform the grades, and for a long time, partly owing to the independence of the system and its lack of harmonization with the public schools, made kindergartners almost a sect by themselves. Now that the scheme is adopted into so many of our public school systems and this isolation is being progressively overcome, and especially as methods have been transformed for the better and the old dogmatism and reverence for the *ipsissima verba* of Froebel are

vanished, we can recognize in true perspective the permanent value of the contributions of principle, method, and matter that have come from this movement.

Much later came the Montessori ideals and practices. The founder of this cult gave it a very broad and fruitful anthropological background, was herself a pupil of Seguin, and realized that the methods that had been successful with subnormal minds were no less effective if applied to younger normal children. The appeal here was to spontaneity, and although the play element was insufficiently recognized the minds of all educators who really studied the system were materially broadened and enriched. It permanently affected in a salutary way not only the kindergarten but the grades. If its advocates at one time were also in danger of becoming another sect, and if it suffered in repute and effectiveness by the intense commercialism which entered with it and by a too ostensive propagandism, it nevertheless brought permanent enrichment.

Earlier than this came the Herbartian movement, led by a group of able men, most of whom had studied with Rein in Jena, who was himself a disciple of Ziller. Herbart's educational system was presented in various texts, a National Herbart Society was founded and a year book published containing many monographs, and the influence and power of this section of the National Education Association grew rapidly for years. All teachers were thus made more or less familiar with classifications of interest, with the function of apperception, and especially with the culture stages. Herbartians in Germany had attempted to recurriculize the primary grades, beginning with focalization, one after another, on Grimm's *Märchen*, always distinguishing the stages of preparation of the mind, impartation of knowledge, and its

integration into the mental complexes of children. The introduction of the philosophy of Herbart was most stimulating and beneficent and was far more intelligible and less metaphysical than Hegelism, from which it was, to a certain extent, a reaction and which it easily supplanted. It purported to be based upon an actual study of the nascent mind of childhood and was to a degree paidocentric. Its generalizations were all in the right direction but it fell far short of putting teachers into the sympathetic rapport with the juvenile psyche that child study did, which went far beyond it in appraising the native instincts and capacities of the growing mind and what it could do, and what best fitted its nature and needs. Of its claims and achievements I have written elsewhere. The attitude of intelligent leaders of American educational opinion found a typical expression in the admirable survey of fifty years of American education by E. E. Brown [2] who, after speaking of the more special work of F. W. Parker and John Dewey, says, "And with it all a veritable fire-mist which may be for the making of new worlds psychological and educational has spread abroad from that central glow at Clark University." This all shows that while American educators are quite ready to "fall for" any practical application of this work in a single direction, of paidology as a comprehensive and transforming culture system which would make everything in the child's environment plastic to his nature they have even yet an inadequate comprehension.

The educational writings of John Dewey have in recent years had much vogue in this country and his influence has been highly stimulating and salutary. The average conservative teacher who reads him thinks himself progressive, but never to a degree that

[2] Fiftieth Anniversary Volume of the National Education Association, 1905, p. 327 *et seq.*

makes him feel unsafe or even much unsettled. To those, however, versed in paidology Dewey not only has nothing new to offer but seems obvious if not platitudinous, and as if he anticipated the attitude of experts in this field toward him he severely criticizes them. It is to them, however, that he is chiefly indebted for the ideas which most teachers associate with his name. He is best described as a mediator between child study and the old philosophical orthodoxies of Herbart, Hegel, Hamilton, or other more or less metaphysical thinkers, so that great and beneficent as his influence has been, it is transient because he lacks originality. I could never understand why he should attack the principle of recapitulation when his own school at Chicago was based on it; why to show the rôle of measurement in teaching number he deemed it necessary to disparage if not deny any place for counting and other processes; why his characterization of the Gary Idea as making the life of the community flow through the school should be thought novel; or, indeed, why his explanation of the system should so often be preferred to that of its author.

Far and away the greatest of all the changes that have taken place in educational thought during the last half century has been the slow recognition of paidology in its larger sense and the ever clearer realization that in the nature of childhood itself and its different stages of development must be found the norm for all the method and matter of teaching, and the slow substitution everywhere of the genetic for the old logical method for the young. This has been indeed a slow Copernican revolution and almost every real advance in educational theory and practice has been due to this fundamental and revolutionary change. In all tests, in the development of all standards, in the study of all processes of learning and

teaching, in determining all topics and their order, in the very voluminous and fruitful investigations into the psyche of criminal, subnormal, or gifted children, the older general child study has developed in many special directions, and these have a great future, for the world is coming more and more to recognize that for the solution of all its problems a better study of the primal nature of man, his fundamental instincts, desires, feelings, and appetencies is first of all to be considered. This has been more and more recognized by thinkers so diverse as Thorndike, McDougall, Kirkpatrick, Terman, Yerkes, and scores of others who are coming more and more clearly to understand the more vitalistic philosophy which Schopenhauer, Bergson, Samuel Johnson, and many others, especially the psychoanalysts, have taught the world, that the growth urge or impulse itself is even more all-determining than circumstantial evolution can ever be.

A more specific and scientific study of educational problems with practical ends in view really began with Ebbinghaus' studies of memory, and this tendency was greatly enlarged and unified by Meumann so that we now have scores of valuable investigations in regard to the various phases of the learning process, which has been analyzed in great detail for diverse mental types—visual, auditory, motor, and their combinations, as well as for different subjects and for different material. Thus it seemed for a time that the didactic aspect of education was in danger of neglect but of late, especially by the project studies, this danger of one-sidedness has been more or less obviated so that educational psychology is now making commendable progress on the side of teaching as well as of learning. Both these trends, however, stress the impartation and acquisition of a definite body of knowledge by specific and always more or less con-

scious methods so that the wide penumbra of unconscious influences, of indirect suggestion, and the value of impressions given and received outside the always more or less limited range of examinable matter, seems momentarily lost sight of.

On the other hand, the innumerable intelligence tests, many if not most of which go far outside the range of school work, have tended to give a more just evaluation to noncurriculized material and to make teachers realize that life itself is always giving a larger education than can be inculcated in the schoolroom. These tests, some of which have found wide currency, are all of great value provided those who use them realize that all are partial and many of the most essential human qualities are still untouched by any of them, and that the range of individual variation is so immense that a child may deploy a high degree of intelligence in certain directions and remain very backward in others. Thus, the ideal of fixing upon any definite body of knowledge or skill which can be considered as normative and as really calibrating the minds of all is fatuous. One very pregnant moral of all this work is that school marks are not a very reliable test of intelligence or basis of predicting success in life.

Manual training as a system was another importation, having originated with the Swedish peasants in their long winter nights. It became more systematized and methodized here than anything else ever attempted in this field, and in St. Louis its principles were long and persistently carried out above the grades by Dr. Woodward. True, not many of the things the children made were of use to them, although some were for the home. No devotee of Sloyd ever suggested that the process of making was most stimulated by the prospect of using things made, so that toys and things used in plays and games, and

for high schools the making of crude scientific apparatus, would have been more stimulating. This was followed by more elaborated and Americanized methods of manual training until this ideal slowly merged into that of the trade school. The latter institutions, however, failed to connect with the technical school and so for a long time suffered from isolation and were the resort of boys and girls who did not do well in the public high school.

Very slowly supervened the idea of a specific vocational training based upon some study of the aptitudes of the individual, on the one hand, and of the needs of various occupations open to children upon leaving school and later, on the other. The lack of harmony between child labor laws and the needs of the very large proportion of the young who upon leaving school drift into idleness or shift from one occupation to another, is at present by no means overcome, but commercial schools, the corporation school movement, the new demand for testing employees to determine their native fitness for special processes—a movement that contains in it vast possibilities—are slowly bringing education and industry into ever closer rapport and supplementing the relative absence of the apprentice system in this country, although there is often serious conflict with labor unions, whose attitude toward most kinds of vocational training has not been favorable to its further development. As I write, a number of the fundamental skilled occupations have far too few apprentices in training to keep their numbers good.

In the many advanced technical schools of academic grade there was long a very prevalent sentiment that their courses were somewhat inferior in culture value to those given by colleges. But this sense of inferiority has happily passed and left almost no trace. We have come slowly to recognize that one

of the first requisites of every educational system should be to prepare those who leave it at any stage for self-support and the self-respect which this gives. The Gary system seeks to have almost the entire life of the community flow through the school and to give the pupils not only an introduction to the business life about them but to develop the civic virtues and be a foreschool for citizenship. This movement has also left its permanent contribution both to educational ideals and practices. Like other innovations, it had certain marked excrescences and impracticalities that had to be lopped off or reduced to their proper proportions. But it was, nevertheless, a stimulus to broader educational thought and it has been more or less fitted to other environments than that in which it was developed.

Agriculture has long knocked at the door of our public school system and slowly but surely has gained admission. The first essential step was the introduction of school gardens, each child having a plot with a count kept of his share in the money value of what he raised, and perhaps with prizes. But the school vacation interfered with this, although such school plants as could be cultivated in the schoolroom itself have often been made of educational value. Then came the Garden City, which gave each child a much larger plot and connected with which came a civic and economic organization well calculated to prepare for citizenship. Children often contributed to the extermination of pests and also learned the economic value of various species of birds, etc. All such activities were connected with natural history. As our school population has grown more and more urban, however, such work is increasingly difficult and limited. The great agricultural colleges, with their experimental farms, gardens, and stations, have made immense progress toward making the cultiva-

tion of Mother Earth a profession and, it has often been claimed, even done something to check the drift of population from country to city.

All this trend toward the more practical education has contributed to spread the conviction that all instruction in science should, if possible, be at first practical, and that pure science, which has the supreme place, should come later as a culmination and be based upon the broadest possible knowledge of technic and application. Even the philosophy of pragmatism, which teaches that every kind of knowledge is really for use, has done much to help us on toward this realization.

Half a century ago almost no attention was paid to the education of deviates, subnormals, or defectives save in institutions specifically devoted to the training of the deaf and the blind. Not to speak here of the marked progress of the last few decades in the education of these latter, we must note the great gains effected by provisions by which bright children could either pass more rapidly up the grades or take a wider and more extensive training in each. Although the tyrannies and retardations inherent in the grading system have not thus been entirely overcome they have been mitigated, and in many places the school system is now relieved of the clog of subnormal children by having them taught in special classes or even schools, so that very many have thus attained the modest goal of self-support who would otherwise have been burdens upon the community. Very ingenious have been the many methods devised for the instruction of idiots and morons within institutions, so that it sometimes seems as though methods for these were really more adequately adjusted to their abilities than those for normal children. The study of the gangs which are found in every city has led to a far better understanding of the boy and even girl

who drift into crime and vice, and the juvenile court with its system of individual investigation of each child brought to it and of its home and street environment, has done a work of salvage the importance of which it is hardly possible to overestimate. Probation and detention houses, too, and the system of conditional sentence have contributed their quota to both the prevention and cure of juvenile crime.

Many school systems have interested themselves in the condition of the very poor, sometimes establishing schemes of visitation, providing free or at least hygienic lunches, and utilizing more effectively the agencies for relief of poverty; while the placing-out system of orphans and the abandoned in the million childless homes of this country, with proper supervision to prevent their exploitation, has also had a most benign influence. For illegitimate children two opposite policies are now contending for prevalence: one that the mother should abandon her child in some foundling home where it will be well provided for and take her chance in the social world afresh, and the other that she should openly wear the scarlet letter, adopt and care for her child, and live down the stigma. The latter policy seems to have been far more developed in Germany than here, while the Catholic church seems to favor the former method.

Outside the school, both connected with and independent of it are many agencies that have come in for the great benefit of children, directly or indirectly, in a sense beginning with the raising in nearly all the states of the age of consent, which has reduced bastardy. Besides this, there are various purity organizations, with their literature, and many boy and girl associations—Junior Endeavor, Knights of King Arthur, summer camps galore and camp-fire organizations, playgrounds with sand piles and often with instruction, recreation parks of various kinds, the Big

Brother movement, and best of all the Boy Scouts. Thus public sentiment is coming into a closer contact with child life and adjusting more to its needs.

Our schools responded slowly at first and then very rapidly to the influences of the late war, and when we were well in it great attention was given to war work of many kinds, interest in and knowledge of geography and history being materially advanced. Even some of our colleges were half transformed into training camps. Patriotism, too, was taught, so far as this could be done, as never before. But it was no less remarkable how suddenly and completely all these adjustments to the conditions of the hour vanished when peace came, leaving almost no trace.

The training of elementary teachers, which began with the second third of the last century, like so many other educational advances was greatly accelerated after our Civil War, so that now there are scores of training schools of very diverse kinds for kindergartners and primary teachers, while many of them offer to teach but are not especially attractive to those intending to teach in high schools. These institutions vary widely in organization, length of course, scope, and method. Some are supported by the city, others by the state, and a few by counties. Some have long tried to enforce high school graduation as an entrance requirement but most accept those who have completed the legal requirements of school attendance, so that the actual attainments of the pupils in these schools differ very widely. In one of them which had great influence in the middle West it was for years insisted that any one could be trained to teach any subject without much knowledge of it provided only the methods were right, so that content was grossly sacrificed to form. In others, much if not most of the time was spent in going over the elementary subjects of the grades and instructing just how to teach each, step

by step, as if assuming that the pupil-teacher already had sufficient knowledge. One or more of these institutions grew so strong as to compete, though always at a disadvantage, with the state university.

Normal schools have never been adequately coordinated with other parts of our educational system. Although some of them claim to compete with colleges they never try to fit for them and their diplomas are rarely accepted as a guaranty of fitness even to enter college. In many of them some one individual has been for years the all-dominating factor and has given a unique and individual character to the institution. Twenty years ago many of them sought university graduates for their staff, but these were generally found to be misfits and the custom ceased to prevail. In the many normal schools I have visited I have found some of the very best and most original educational work, but often along with this some of the very worst, most antiquated, and sometimes execrable teaching. They have suffered, too, in many places from an intrusion of politics. One often finds in them, however, some specialty that is very highly developed so that it is of late quite common for normal school instructors to be transferred to collegiate chairs, something that very rarely happens in the case of the high school teacher, however successful he may be. Normal schools have thus preserved an individuality and a freedom not only to adapt to the environment but to give scope to whatever originality and initiative the corps of instructors might possess, and for a long time they contributed more than any other single agency to make teaching professional. So individual are these institutions that they have always found it difficult to organize, and there is not only no national but I know of very few state or other associations which bring the faculties of these institutions into sufficiently stimulating and sympathetic

rapport with each other, which is so greatly needed at present.

In this connection the various associations of parents, sometimes with teachers, should be mentioned. In some communities parents of children in a single school have organized and contributed materially to the beautifying of the grounds and the ornamentation of the rooms and halls, have systematically visited the school, and invited teachers to participate in their own social life. In others, parents' meetings have been held by teachers of certain grades and thus a new bond has been established, parents have come to know their children better and to take more interest in their school life, and have been given useful hints about dress, diet, etc. Other of these associations have attempted to resist political influence within school boards, have nominated nonpartisan tickets for these bodies, advocated their election on a ticket at large instead of by wards, and have sometimes conducted campaigns for different purposes and taken various attitudes, sympathetic or critical, with the general conduct of education in their community, occasionally providing courses of lectures, aiding in the conduct of school exhibits, sometimes offering prizes for competition, urging new courses, etc. Some of them have been effective in the very wholesome movement of reducing the numbers of the school board and thus centralizing responsibility.

In nearly all these movements the influence of women, both in the school and community, has been of growing importance and, on the whole, has been very beneficent. In some states nine tenths of the entire teaching force are women so that this sex now almost monopolizes elementary teaching. This has been partly for economic reasons, and woman's struggle for parity of salary with that of man has been a long and hard one. At one time it seemed

almost as though, largely under her influence, teachers would adopt trade union methods to compel better pay and would even suspend their function if it was not forthcoming. This danger, however, passed. But her efforts to abolish all discriminations against married teachers have been less effective.

We now have not only colleges for women doing practically the same work as in similar institutions for men but women have free access upon equal terms to nearly all colleges and universities, where they have abundantly demonstrated their ability to keep pace with the male students. Their partial segregation, as at Radcliffe and Barnard, does not indicate the trend of general practice, although in coeducational institutions the differences between the sexes are always marked by the choice of electives and by more or less divergence of life outside the classroom. Although nearly all graduate institutions in the country are now open to women, they are found in far less numbers in universities because less inclined, both for economic and psychological reasons, to specialization.

Teachers' organizations, which really began to be effective under the influence of Horace Mann, have in the decades within my experience grown to be a great and beneficent power. They give not only *esprit de corps* but are a source of great stimulus, widening acquaintance with localities, personalities, and movements; and have social features that appeal very strongly to the gregarious instinct. The National Education Association, which was vastly increased by the epoch-making organization at the meeting at Madison in 1882 under the guidance of T. W. Bicknell, has grown by leaps and bounds to be by far the largest of its kind in any land or age. Its work is divided into ever more departments, and the large cities of the country vie with each other in attracting it for its annual meeting in July. Its proceedings are

the best single record of educational thought and achievement in the country. Here idealism has its innings and teachers are heartened by learning that there are always vast possibilities beyond present achievements. They learn to compare the educational advance in different sections of the country; a greater degree of practical uniformity in ideals, standards, and methods is enforced; and laggard states and sections and those that are in a position of leadership come to know where they stand on the various scales of efficiency, as well as of literacy and all kinds of excellence and defect. The N. E. A. for a long time appealed chiefly to elementary teachers but later those of the high schools came in and at last, largely under the influence of the successive presidencies of Nicholas Murray Butler, colleges and universities took part in the programme, although most of the latter have generally held more or less aloof. The Association has had many vicissitudes and several feuds, but with its large constituency and its now substantial funds its prospects for continued and augmented usefulness were never brighter. The Educational Council, with its session in February, brings together the practical leaders in educational thought and administration and perhaps is most representative of our national status in this field.

There are, of course, many more local associations of teachers, while some are statewide and in some large states the association is divided into two more or less independent sections bringing together several thousand teachers at their stated meetings and often commanding the services of educational leaders from a distance. There are also county and town associations, while teachers of many special topics foregather at least annually and some of them print proceedings. Many of these meetings the teachers are required to attend and for some of them school is

suspended, their pay continuing, that they may do so.

One very important recent feature of American education is the utilization of the long summer vacation. Chautauqua and its various imitators was a unique pioneer in this field. Then came summer sessions or schools at most of the larger colleges and universities and not a few of the normal schools. Here certain, often young, instructors are given an opportunity to increase their income and credits are given to pupil-teachers, the accumulation of which may enable them to enter college or to pass examinations for life certificates, etc. Most of these summer schools have two features: (1) special class work in particular subjects, and (2) general social meetings, inspirational addresses, excursions, entertainments, etc.

No other country or age has ever seen any development like the American correspondence schools. It is possible to give much very systematic and valuable instruction by mail, and Scranton was at one time the center of an organization that enrolled nearly a million students who took such courses in their homes, passed examinations, those receiving diplomas who attained a certain grade of excellence. Besides this we have various special correspondence schools in literature, art, electricity, etc., and in addition the university extension scheme has brought more or less systematic courses of personal instruction into a great many communities where the higher academic life would be otherwise entirely unknown. All this is a remarkable illustration of two things: (1) of the fact that a large number of young people here neglect opportunities for education in its season and (2) that they later feel the urge and attempt to make up their deficiencies and to better their condition by attaining a greater degree of expertness in their own calling. Despite the fact that this work often distracts the

energy of the teacher from increasing his own efficiency in his department, the call for aid and the cry against cloistered knowledge is far too strong to be resisted.

As to academic schools and departments of education under various names, while, as a teacher, I naturally sympathize with every aspiration in this direction it must yet be gravely doubted whether any of them have really succeeded in developing a body of instruction that does compare with that of the other learned professions, which have a longer history, a richer literature, and more established traditions. Much of the material in these courses is too mausolized and hypermethodical, so that the sugared-off facet of it all that remains in the mind years later comes to seem rather meager and the question is often asked by older teachers whether what they learned of school hygiene, the history of education, the methodology of teaching the different branches, might not, in all essentials, have been given far more succinctly. This work, however, is steadily improving in both richness of its specialties and in its scope, and certainly one who is really well informed on the complicated details of school law and administration, the various tests, the methods and results of school surveys, elements of school architecture, physical culture and hygiene, the outlines of child study, the history of elementary, secondary, and academic education, and of learned societies, the organization of foreign systems, with as much knowledge of general psychology as can be put into daily practice, cannot be said to have an education inferior in culture value to that given in any professional school.

One very general defect of our educational system may be noted here—that the teacher does not teach enough but gives too much attention to setting, hearing, and marking lessons. In this we have the great-

est contrast between elementary and secondary education in this country and that in continental Europe, where the teacher seems often almost jealous of textbooks, as if he wished himself to be almost the sole source of information on the subjects he teaches. Connected with this is the fact that while we have vastly more textbooks for pupils, we have far less good pedagogical literature designed for teachers, so that their minds are too often unenriched from year to year and there is a far less professional spirit. It is not hard work to hear lessons but it is hard to actively interest pupils in new knowledge and inculcate it so that it will remain in their minds, take root, and grow. This, too, I believe is the cause of the paucity of illustrative apparatus here and of the fact that so many teachers do not learn to develop any real love for their work as such.

In answer to the often asked question, just where is the weakest spot in our American system of education from kindergarten to university, to which so many and diverse answers have been given, mine would be that it is found from about the fourth to the ninth grades, both inclusive. This opinion is based not only on my studies of childhood and its capacities, which are, I believe, least understood and met here, but upon observations made in many visitations to schoolrooms in different parts of this and other countries. The powers of memory, the possibilities of mechanization, and docility generally are at their height, and drill, authority, and even *Dressur,* which it is so hard to make effective in a democracy, can really do most just here; so that the greatest loss, which we have sought in every part of the system, is, I believe, found here. It is at this stage that greater didactic effectiveness is most of all needed.

Now that the ship of state is everywhere taking a lurch to the left it is more clearly seen that democracy

must educate the masses who are becoming the masters of the world. Much as our hearts warm to the programme of eugenics and needful and beneficent as it is for permanent stabilization, it is so slow that we must now give prime attention, according to the principle of "safety first," to training. Let us look a few facts and figures squarely in the face.

There are now nearly 750,000 persons engaged in the work of teaching in the United States and we are expending a little more than one billion per annum on education, to which the Sterling-Towner bill, if it passes, will add nearly a hundred million more. This sum, we are told, is larger than that which all Europe now expends for education. There are, in round numbers, 27,000,000 children and youths here of legal school age of which only some 21,000,000 are enrolled and only fifteen and a half million in average daily attendance. The average number of days the public schools are in session is 161 out of the 313 weekdays of the year. The number of days of actual attendance by enrolled pupils is about 120. Thus only some five ninths of the children of school age really attend school and these do so less than half the weekdays of the year. Thus our system of public education has something like one third of its maximal efficiency.

Again, all states now compel attendance, although three states require only three months and but six require nine months. Thus it is, on the whole, surprising that the illiteracy percentage is not higher than seven per cent, as usually given out. On a slightly different basis, the cost of schools per capita has been reckoned at $7.26, and per pupil, $49.12. We have now, happily, reopened about all of the *circa* 50,000 schools closed during the war. We have 670 universities, colleges and professional schools, with some 350,000 pupils in the former, 50,000 in the professional schools, and over 2,000,000

pupils in the high schools. The average length of service of teachers in the public schools is between four and five years, so that the turnover requires that one fourth to one fifth of new teachers be employed each year and this need the 190,000 pupils in all our normal schools, with courses nearly all lasting two, some three and four years, cannot supply, while the small pay and meager pensions of teachers do not attract the best talent. This gives a certain youthfulness to teachers and perhaps enables them to get into closer rapport with pupils because their own childhood is not so far behind them, but it necessitates far more direction from above. Those who enter teaching, too, as a stepping-stone to something else lack *esprit de corps*. Meanwhile it is doubtful whether the social status or the relative grade of average intelligence of public school teachers as a class, or their influence in the community, has increased.

Due probably in part to the world-wide lapse from culture to *Kultur* there is also everywhere a growing tendency on the part of the rising toward revolt from the guidance of the older generation. This is also, though probably in small part, due to the fact that the latter brought on the world war and are thus in a sense held responsible for all the handicaps and disasters still following in its train, but it is psychologically connected with the rising tide of democracy which arrogates leadership to itself, for it is said that even parental authority is greatest and most respected in autocracies. Young Frenchmen have formulated in two volumes plans for a new higher education involving very radical new departures. In this country a number of college and university presidents, in answer to a questionnaire, report a new spirit of unrest and dissatisfaction, a demand for more liberties, representation, and participation in the faculty and even in boards of trustees, petitions for new courses, chairs,

etc. Not only in universities abroad, as we have already seen in Chapter VII, but in lower schools there is a new discontent culminating, although very rarely, in school strikes, of which I have tried to keep tab and which are generally successful. This spirit has its extreme illustration in the projected Osborne school in which pupils are to elect their own teachers, subjects, make all their own rules, etc.

Shepherd found that nowhere in France, Germany, or England was the late war taught. Very many texts were produced and some were introduced, but some one of the half dozen parties objected to one after another, as did the parents, so that as the standpoint, method, and field covered could not be made satisfactory, all effort to teach the war to the young has been abandoned. The rising generation, thus, is nowhere learning the lessons or even the facts of the great conflict but is left to depend entirely upon "what father told," which was the method of the troglodytes before history began. This favors just the prejudices and national and racial antagonisms out of which wars grow. The same is by far too large an extent true in this country. This omission kills instead of developing and feeding, as it should, the intense and vital new interests the war engendered. To teach and study what all now agree on is dull and zestless work, save in the physical sciences, and leaves youth with no inner defenses against red propaganda, which is dangerous only where teachers have failed of doing their duty.

Again, it is bad enough that we cannot teach religion in the schools, although its exclusion was a necessary device and a master stroke of policy at a time when denominationalism was most rabid and intolerant, but now that the acrimony of sectarian bigotry is abating it is time to remind ourselves again that childhood and youth need religion more than any-

thing else and more than at any other time of life for the very formation of character, and that education without it lacks heart and soul. For this stage of life almost any faith or creed is better than none. The more we come to know what religion really is, means, and can do, the more disastrous do we see this omission to be. Protestant though I am, I would far rather a child of mine should be trained to be a good Catholic, Jew, or even Buddhist, Confucianist, or Mohammedan than allowed to grow up with no religion at all and made an early skeptic toward all faiths. In this pragmatic age why are we not able to see that not absolute truth but efficiency for the conduct of life is the supreme criterion of all values here and that the highest interpretation of the most vital human experiences must always take the religious form?

Once more, never in my day has a more calamitous pedagogical blunder been made than in the famous report of the Committee of Ten by which physics was made the entering wedge for giving science a permanent recognized place in the high schools, to which the complacent professors of this subject responded by furnishing textbooks so hypermethodical and mathematical and so rigorously excluding practical applications that classes were depleted. Biology should have this place by every pedagogic right, not only because of its immediate applicability to economic uses, to personal and community hygiene, etc., but because of its pervading humanistic interests culminating in eugenics. It was barred because of the popular and sectarian phobia against evolution. In fact, nothing knits the very neurons of the brain into such a wholesome unity as evolution comprehensively taught. It gives to the cosmos itself a new and higher meaning. Insight into it is often nothing less than regenerative, and ignorance or negation of it means mental

arrest and obstupation, for those who know it not have not attained their intellectual majority.

H. G. Wells says that if civilization is to be salvaged we must spend ten times as much on education as we do now. In my judgment we need a radically new dispensation for education, a new and higher pedagogy and statesmanship that sees all things from the educational (which is so largely identical with the evolutionary) point of view, for this is the highest of all standpoints. It is educational values that are supreme over all others. We have not even learned to utilize the movies, which have more cultural possibilities than anything since the invention of Gutenberg, while the wireless and broadcasting should be watched as containing perhaps germs of great pedagogical possibilities. The educational value of our newspapers has greatly deteriorated because of the frenzied efforts of advertisers to reanimate business, whose interests control and limit the freedom of even the editorial pages in so many directions.

The paidocentric versus the scholiocentric viewpoint has come to stay as surely as its analogue, the Copernican revolution from the geocentric to the heliocentric view of the world, did. Freud claims that this latter, Darwinism, and his own discovery of the unconscious mark the three chief modern epochs or culture stages. "The unconscious is the childlike and the childlike is the unconscious," and this has brought new insights into the nature and needs of the first very few years of life which are so basal for the formation of character. Psychoanalysis has also given us new insights and attached new importance to affectivity, thus enabling woman to both understand and to think more highly of herself, and that most opportunely just as she is achieving her economic and coming into her political freedom. All this augurs well for the future.

Now most educators are like Bunyan's man with the Muckrake who did not see the golden crown just above his head. Many of them are absorbed with petty details, for educational red tape and bureaucracy have grown enormously under progressive centralization. But there are better things—new tests of individual intelligence, new standards for the three r's, grading and marking, surveys by professional accountants and other experts, better modes of visualizing annual reports, project systems, examinations of pupils and of teachers, more vocational training, better teaching of dullards, defectives, and now of superior children; better school buildings and equipments, the progressive training of teachers while exercising their vocation, the education and prevention of criminal tendencies in the young, and best of all, better physical training and more effective instruction in personal and public hygiene. No one can disparage and all must praise each and all of these and other agencies of improvement which altogether mark general and steady if not signal progress. But above and beyond them all there are larger problems now confronting post-bellum pedagogy which call for far greater breadth of view, more originality in devising and boldness in carrying out yet more radical reforms. The time is cryingly in need of a great leader and of educational statesmen with visions and with faith in them who shall look over all the manifold factors of our present-day civilization from the standpoint of the nature and needs of the rising generation in their stage of apprenticeship to life as broadly as Plato did in his ideal republic, which we now know was conceived to save a state smitten with the seeds of decay, just as the great scheme of Comenius was to regenerate Europe after the Thirty Years' War; or Rousseau, who now seems to us, though he did not realize it, to have been striving to anticipate and save

France from the impending revolution. Unless the present extremity can produce such a man, not only shall we fail to realize the unique possibilities of the present era of opportunity but our very institutions themselves will suffer slow but sure decline, for never so much as now is education *the* one and chief hope of the world.

Professional education in the period under review has also made great advances in the number of schools, chairs, method, and spirit. In these respects medicine leads. Half a century ago these schools had practically no endowment and many of them were private ventures chartered to give degrees, with no control from without. First the professors of anatomy and then of physiology became purely professional and gave all their time to their work. But around the small nucleus of professionals was a far larger body of local physicians who gave a little of their time to instruction in return for the prestige of being known as professors, and all expenses were met by student fees. It was a great step in advance when the sentiment of the profession decreed a survey of all these institutions with an intent to eliminate those that were unworthy, and the long series of Illinois reports on this subject marked more or less of an epoch. It was long very difficult to enforce academic standards for admission so that classes were made up indiscriminately of graduates and those who had only a secondary training or even less. It was a great step when one of the leading schools in the country refused to admit any students who were not graduates, but this so depleted its ranks that standards had to be lowered. Meanwhile many of our leading institutions organized premedical courses before graduation which enabled the intending doctor to shorten his term of preparation, and the best institutions slowly

developed, department by department, graduate work devoted chiefly to research. The greatest epoch in the history of medical education in this country was the foundation of the Johns Hopkins Hospital and School of Medicine which was the first installation of the kind with a large endowment, so that for a long time the apex of medical education in this country was at Baltimore. And this, in a general way, may be said to have lasted until the foundation of the Rockefeller Institute for research only.

It is essential for medical education that there should be a large and central hospital for clinical study and demonstration. It was the fact that of all the cities in Europe Vienna had the most centralized hospital opportunities that made it the favorite resort of American physicians who wished to become more proficient in their specialty. No adequate history of medicine in this country has yet been written, but when it appears it will have a profound significance. Indeed, the whole history of medicine from its beginning to the present time, as its various standard texts show, has a rare culture value, though it would still be a far cry to demand that it have a place in every medical curriculum. In looking over the announcements of these institutions it is sad for a psychologist to find that even the morbid aspects of his subject so rarely have a place in the course of study. Most American physicians graduate without any systematic knowledge of psychiatry and at best have only a brief lecture course, and that perhaps not required. Actual clinics held in asylums for the insane, such as are usually given in Germany, are very rare. Considering the great and growing importance of this subject we must believe that its inadequate representation in these institutions is a great defect, especially in view of the recent rapid developments in this field. The medical profession is, however, far better organized

than any other, has its own ethical code, many associations and meetings, a vast body of literature, and doctors read journals in their profession far more intently and are better up to date in all new discoveries than are members of the other learned professions, excepting, of course, technologists. This is partly due to the fact that medical science has had an unprecedentedly rapid development in all its departments in recent decades.

Legal education has also made progress, although this has had many obstacles to encounter. Colleges have developed historical and economic courses as a basis for professional studies in this field which are calculated to give it the broader basis it so much needs. Law schools have found it as difficult as those for medicine to prescribe graduation for admission and harder to enforce a four-years' course. They have had the same difficulties in recruiting an academic staff of professors devoted solely to teaching because successful practice is so much more lucrative. Endowments, too, have been few and limited so that short-cut courses have flourished and even the Y. M. C. A. has developed a professional school which turns out a large number of graduates each year, not a few of whom have already attained a high position in the profession. Apprenticeship in the office of a lawyer has practically ceased and the young graduate entering a large firm often soon finds that his opportunities for securing independent practice have vanished before he knows it. From the very nature of the case no such epoch-making progress in either the theory or practice of law has been made as in medicine, by far the most important single reform being the introduction of the case system at Harvard which has transformed and vitalized legal education throughout the country.

The training of Protestant clergymen has ad-

vanced, but in the face of peculiar obstacles. Trustees who control these institutions are usually prominent clergymen, between whom and the faculty lack of harmony has often produced prolonged discord. While denominational lines are slowly but surely fading their influence is still far too prevalent. In no single institution, unless we haltingly except the two Unitarian schools, has the higher criticism been allowed to exercise its most stimulating and benign influences. Meanwhile the quality of students entering this profession and their relative number have declined so that the question of demand and supply is so acute, and the ways of securing ministerial license to preach so devious, that the profession has no such unity or *esprit de corps* as the others. In very few theological schools has the history of the great religions, each treated sympathetically, been introduced, and we are very far from having any adequate training for missionaries such as that supplied with unprecedented fullness by the faculty of the *Musée Guimet* in Paris.

It would seem a truism, too, that those whose business it is to save souls should know something of the human soul, but psychology has found very meager representation here. When one realizes what could and should be done to give the broader view that transcends the pernicious and wasteful opposition between science and religion and which gives evolution its free course and admits the latest results of the most competent scholarship, we can understand that the inadequacy of religion in ministering to the moral and social needs of the community in the world to-day has a very definite and sufficient reason. Parliaments for religion have given us faint glimpses of what might be done in the great synthetic work so cryingly demanded in this field. There are countless young ministers who have turned their faces toward the

light and quite outgrown the limitations which it is not possible for them to throw off, but it is noteworthy that this advanced religious consciousness, which has in it the promise and potency of such beneficence and saving influence in the world to-day, will never emanate from these seminaries of learning, most of which insist upon the old doctrine of verbal inspiration, make it a heresy to doubt miracles, and even stress the *ipsissima verba* of the Apostles' Creed literally understood.

In the field of higher education the last half century has seen remarkable progress. The number of colleges and universities has much more than doubled and their size, wealth, and scope been vastly increased, so that we have lately been told that this country has more institutions bearing the above names than all the rest of the world combined. The larger of the old endowed institutions of the east still have a high prestige but are becoming more and more local. In the half hundred state universities, which since the first Land Grant act have grown so rapidly and now have their own organization, the courses differ from those of the old endowed schools by being somewhat more modern and practical, so that not only their influence but their drawing power seems to be predominating over that of the private or endowed colleges and universities.

The leaders in this field have also found it advantageous to meet and organize. Some twenty-five of the universities doing the most advanced work have for a quarter of a century held annual meetings of several days discussing, with the utmost informality, topics of general interest but expressly refusing to formulate anything that can be promulgated as its official pronouncements or become in any degree mandatory upon any of its members. This association has done much during its existence to foster a

real university spirit in the country, and the pamphlets of its annual proceedings give probably the best single picture of the progress of academic sentiment and practice anywhere to be found. Besides this are a number of associations where the president and one or more professors from each institution of a section of the country (New England, middle, southern, mid-western states) meet as guests of each other in turn to discuss any topic that may seem to them of vital interest. Sometimes, though rarely, distinguished scholars from abroad are visitors and guests at these meetings, but neither the public nor the reporters are admitted. The state universities, too, have an organization of a similar kind where policies, details of administration, and any and all problems connected with their interests are discussed and ideas pooled, and where each is liable to be questioned upon any item of its practice.

In my long experience with these meetings I have noticed, as have others with some regret, the growing preponderance of the practical problems of the Dean's office and a certain reticence and reserve in regard to the most intimate policies which each institution would like most of all to know about the other. Here the control of athletics has been the most perennial of all problems. Most marked, however, has been the growth of a kind of democracy. Whereas a quarter century ago the leaders of all the smaller institutions held back and were inclined to take the attitude of "watchful waiting" for what the delegates of the few larger institutions would propound, sometimes hearing their own practices criticized, of late years the smaller institutions have come forward with their own problems. In place of the strong trend toward uniformity and the disposition to follow a few leaders, the individuality of all members of this group has been more and more in evidence, although it is notable

that in these gatherings we never hear any attempt to characterize or laud the Harvard, Yale, or Chicago spirit in a way so characteristic of all occasions in which representatives of single institutions foregather. Thus these little assemblies have stimulated the broad comparative point of view and made some headway against the narrow individualism and provincialism that formerly prevailed and made each institution a law to itself, and have also enabled institutions between which the most active rivalry prevailed to see more clearly eye to eye and glimpse their own problems in a larger perspective.

Meanwhile the Smithsonian Institute, the medical and national library, and the great Bureaus in Washington have grown and their appropriations increased rapidly so that it was inevitable that the question of organizing a great national university there, especially as a sort of culmination of those of the states, should recur, as it has done several times in my experience. Several bills for the establishment of such an institution have been drawn up for Congressional action. If these Bureaus with their vast resources of personnel and expenditure were organized it would make, we have often been told, the fitting capstone of our entire system of public education and be especially attractive to investigators. This, however, is decidedly against the interests of all our larger institutions and it is doubtful if it will ever be possible, especially as the sentiment and the methods of work in these departments are more and more against any such form of centralization, as the Hadley survey so clearly showed.

The attitude of academic leaders here is not entirely unlike that of our leading schoolmen against giving the Bureau of Education an administrative instead of a merely informing character. Although at times teachers have favored a ministry of educa-

tion on lines more or less like those of the governments of continental Europe, giving its head a seat in the cabinet, it is doubtful if the spirit of local autonomy will ever actually permit such a step. Thus I fear that the Sterling-Towner bill has small chance of passing. Probably the country was never riper for it than under the wise and efficient administration of P. P. Claxton, when the policy of the Bureau was directed mainly toward the suppression of illiteracy and the improvement of rural schools and other elementary matters. Nevertheless the jealousy against giving it increased power even in these fields, lest its influence might extend upward, has so far proved invincible. The Bureau itself has not escaped the influence of politics and has given only too much ground to the enemies of centralization to fear that partisanship could not be effectively safeguarded against if we had a great national university controlled by Congress as the state institutions are by their legislatures, which in their dependence upon annual appropriations have not been entirely exempt from this baleful influence.

The National Academy of Sciences aims to bring together the most eminent and productive intellectual workers, and its ideals have been inspired by the far older but similar associations of *savants* in Europe. It was for a long time too much controlled by scientists in the service of the government at Washington but it has of late years become more truly national, and at the same time the leaders in physical sciences who controlled it have given ampler recognition to humanistic departments, even several of us psychologists having in late years been elected to membership although we have had up to date almost no representation on its programmes. Its spirit and meetings have been most stimulating. The National Research Council has lately attempted to compile a conspectus

of all agencies in the country devoted to the extending of the bounds of human knowledge in all departments and to inaugurate new, and facilitate old, lines of research which require wide coöperation. Membership in it is one of the highest distinctions of American scientists and it includes those devoted to applied as well as pure science. It now has a permanent and fitting architectural installation in Washington. Its annual meetings are held in different sections of the country.

The American Association for the Advancement of Science is a more popular body with a far larger membership and with programmes of a less esoteric and special character, but it has been an agency of great significance, as have very many new scientific journals of various types and departments that have sprung up within the period here covered.

Much as has been done, vastly more remains yet to do. Nothing can salvage the world but education. The masses must be far more intelligent in a democracy than in any other form of government but there must also always be very advanced training for leaders whose power will be no less great than that of monarchs, although it will be the power of knowledge. More important yet for the future of the world is a constant supply of new knowledge giving new power over both Nature and Mansoul. To urging the importance of fruitful research for the salvaging of civilization, belief in which has become so cardinal and profound as to be almost a religion with me, a faith that has dominated so large a part of my life, I shall venture to devote the closing paragraphs of this chapter.

Thackeray wished he could have been Shakespeare's bootblack, and many English men of letters rank the Elizabethan above the Victorian age. Classicists have often wished they had lived in the

day of Plato or Caesar, as if their age were superior to our own. F. W. Robertson said he would give all his life in exchange for an hour's talk with Jesus just after the Sermon on the Mount. Ruskin, William Morris and their group, since we cannot turn the wheels of time backward, would reconstruct our own industrial and social system on the pattern of the ancient guilds. For good Catholics, the apical blossom of the Tree of Life was found in the apostolic, patristic, or scholastic period, and all that has happened in the world since is of really far less import. For Max Müller, the life of the primitive Aryan; for Schliemann, that of the Homeric age; for Tacitus, the ancient Germans, were nearest the ideal, while for Plato the golden age was in the lost Atlantis and belonged to another era.

Christianity first in its doctrine of a millennium began the new fashion of looking to the future for Utopias when we seek to escape the pressure of present reality, and to this tendency evolution has now given a great impulse, as seen in the writings of Bellamy, H. G. Wells, Pataud and Pouget, C. W. Woodbridge, Chapman, Cramm, Howe, Tangent and many other portrayers of the great and glorious things that may yet come on earth. For those who abandon themselves to such reveries the present seems preparatory for something greater if not, again, a trifle mean compared with Altruria, Equitania, Sub-Coelum or even Meccania. During and since the war there has been a great revival of interest in what might, could, would, or should be, often in some vague or obscure place, perhaps at a time no less indeterminate, and sometimes our El Dorados have been projected to the center of the earth or to another planet—Mars, Saturn, etc.

Now, my thesis is that all such fugues from actuality and what Desjardin made supreme, namely, *le*

devoir présent, are now, as never before in history, weak and cowardly flights from the duty of the hour, wasteful of precious energy and, perhaps worst of all, they are a symptom of low morale, personal or civic, or both. True greatness consists solely in seeing everything, past, future or afar, in terms of the Here and Now, or in the power of "presentification."

The equivalent of everything that ever was, is, or can be made to happen is not far off or in some other life, age, or place, but within or about us. Creative processes take changing forms but the energy that impels them is identical with that which started cosmic evolution. All that the Hebrew prophets did and said we now know was inspired by the needs of the hour in which they lived, and they never strove to foretell the far future. Our time is just as ripe for a true Messiah as when the Star of Bethlehem appeared, and a new dispensation is just as needed and just as possible as when the Baptist heralded the advent of the greatest of all "presentifiers." Now when all human institutions so slowly and laboriously evolved are impugned, every consensus challenged, every creed flouted, as much as and perhaps even more than by the ancient Sophists, the call comes to us as it did to Plato (all of whose work was inspired by the need he felt of going back to first principles) to explore, test, and if necessary reconstruct the very bases of conviction, for all open questions are new opportunities. Old beacon lights have shifted or gone out. Some of the issues we lately thought to be minor have taken on cosmic dimensions. We are all "up against" questions too big for us so that there is everywhere a sense of insufficiency which is too deep to be fully deployed in the narrow field of consciousness. Hence there is a new discontent with old leaders, standards, criteria, methods and values, and a demand everywhere for new ones, a realization that

mankind must now reorient itself and take its bearings from the eternal stars and sail no longer into the unknown future by the dead reckonings of the past. We must find or make and ascend a new outlook tower high enough to command the whole earth and its history, and become familiar with the perspective and other phenomena of altitude, although this is perhaps the hardest of all things for our distracted, analytic, and specialist-ridden stage of culture.

In a word, the world is sick and needs again a great physician for its soul just as it does for its body (one third of our youth being unfit to fight). Its distempers, however, we hope may prove to be those of youth and not of old age, but even if the latter, they are ominous for the maturity of the race. Many specialists have diagnosed and prescribed but they all deal with symptoms, and the real nature and true cause of the disease still baffle us. It may well seem preposterous to the whole guild of doctors for a layman in everything, whose only advantage is his aloofness from all their works and ways, to suggest a deeper cause demanding a more radical therapy. In what follows, however, I shall venture to attempt nothing less than this. Underlying almost everything else is the fact that man has now filled the whole earth and that it will soon become even too full of his species. The human population has in nearly every nook of the globe been increasing in the last few generations at a prodigious rate, and its pressure upon the means of subsistence is already in many regions more acute than even Malthus foresaw. In this country almost within the memory of men now living, not only the Pacific coast but even the great Mississippi valley has been filled with a teeming and enterprising population. In 1890 some of the great powers doubted the advantage of extensive colonies in remote

regions, but since the great land scramble in the decade that followed, about every part of the inhabitable earth has been appropriated, explored, and is now being exploited. All Africa is apportioned, and not only Australia but Madagascar, Borneo, New Guinea, and all the smallest of islands opened up so that there are not only no new continents but practically no new acres to be discovered. The great era of diffusion and tenancy is practically ended. Man has not only taken possession of every room but of every closet of his terrestrial habitation.

In this expansion he has been wasteful of material resources to a degree so prodigal that we can now approximately date the exhaustion of many of them. Prospecting has been so extensive and careful that there will probably be few more great new finds of gold, silver, diamonds, coal, natural gas, etc., like those of the past, and the lure and glamour of great new openings thus made is already abating; while the acreage that once yielded bumper crops without fertilization is losing its spontaneous fertility.

The moral of all these trite facts is that henceforth the progress of the world must depend upon quality, not quantity; trust more to nurture and less to nature; realize that it can reap only where and what it has sown; must row where it has hitherto drifted with the current. This country especially has grown to be the richest and greatest in the world by its natural resources, but it must henceforth not only conserve but laboriously cultivate. We have found that hereafter we must make and cannot expect to find our ways. And no less important is the development of our human quality.

In the geologic history of the globe the great epochs have been marked by the alternation of two periods; first, that of the emergence of vast areas of land from the primeval sea and its tenancy by

species which populated it from the ocean, adjusted themselves to terrestrial conditions, and found a table spread for them so rich that they multiplied, varied, and spread with great rapidity. Then the tides turned and there were long periods of submergence and reduction of land areas during which many forms that had established themselves upon terra firma went back to their first love, the sea, like whales and dolphins; dwindled to insignificant size; or became extinct, like the great saurians, because they could not adapt to a new habitat. What makes our age great beyond all historic comparisons is that it has seen within the last few years the high tide of man's great processional over the earth and also the beginning of the recessional ebb when the world must have a new type of both men and measures or else revert to a more primitive stage of civilization. Already we see about us many alarming signs of regression. The great war itself, which marked so signally the turn of this all-dominating tide in human affairs, was only the inauguration of the colossal conflict between the old forces that expanded and the new ones now in the ascendant that would redirect the progress of man by adjusting to the new turn of fate.

If our planet had doubled in size while it has doubled in population; if a vast, rich, new continent had just been discovered, as in 1492, or emerged from the sea; if the population of Europe had remained what it was in the days of Napoleon; if man's wants had not increased or the standards of living risen or surplus products and foreign markets had remained unknown, and there had been no surplus population anywhere, Germany would never have had her mad dream of subjecting Europe, for the world war marked the first impact and repercussion of the great current of expansion, which had behind it the whole momentum of cosmic evolution against material limi-

tations. Thus man has in a sense outgrown his world, so that it is now too small for him. From now on development must be intensive rather than extensive, and inward as well as outward.

When a ship is wrecked on a savage island, passengers and crew are thrown back to primitive conditions and adapt to a new environment and adopt new leaders, often reversing all conventional discriminations; and Bolshevism is only an ostensive paradigm of what the *Zeitgeist* is doing, only more slowly and comprehensively, for the world, which is being thrown back to first principles and finding these to be no longer political but chiefly economic and psychological so that even its past history has to be rewritten with a new perspective.

If the wealth of any land were equally divided, everybody would be poor, not rich, for there is not wealth enough in the world to satisfy one one-hundredth of the present demand for it. As civilization advances, it costs not only more money but more time and effort to keep people happy. Thus there is a rapidly growing excess of demand for pleasure over the supply, so that the volume of discontent is constantly mounting. This life, which is all man now really believes in or cares for, cannot begin to give what he asks of it. The average individual now never thinks of the far future of the world or even of his own posterity for more than a generation or two, but wants all that is coming to him now and here, and uses every means in his power (fair and sometimes foul) to get it. Thus he plunges on toward the bankruptcy of his hopes in their present form, and sagacious minds are now realizing that humanity can never be satisfied save by restricting its desires or by transforming and re-directing its aspirations to more attainable goals; or, in more technical language, by finding more internal surrogates for their gratifica-

tion. Thus we are at the very cross-roads of destiny, and must either go on to disaster, or change our course.

This means nothing less than that the world is now squarely up against the problem of getting a deeper knowledge of human nature and finding more effective ways of guiding it. We must not forget that while our industrial system is less than two hundred years old and even our political institutions go back only a few thousand years, man is at least a hundred thousand years old, and that we must readjust to all better knowledge of him, just as we do to all the newly discovered laws of nature. Thus as man has reached and rebounded from his geographic and other limits, his ideals of material prosperity have also impinged upon adamantine limits, and the current of his psychic evolution must now finally make a new way in another direction. Just as there are now countless individuals who should never have been born and who could in no way so benefit the world as by taking themselves out of it (but who will never do it, so that society and industry must find ways of utilizing them as best they can, trusting the slow processes of evolution to better the human stock) so there are innumerable spurious hopes, ambitions and aspirations which should never have arisen, but which we must learn to utilize and sublimate, striving slowly to subject opportunity to social and human aims.

Nature and Man—there is nothing else outside, above, or beyond these in the universe, and there never was or will be anywhere any item of creative or conservative energy or influence, either in nature or man-soul, that is not just as effective and facultative here and now as it ever was or will be anywhere.

The way down the long scale from cortex to cord or even from man to mollusc is as broad as the way up is strait and narrow, and many there be that walk therein. The lowest sixth of the population of

England, we are told, produce one half of the rising generation, and infra-men breed a hundred times as fast as really eugenic supermen. The forces that make for human degeneration were never so many, so active, or so ominous, and nothing less than civilization itself is at stake. It has never entered into the heart of even pessimists to conceive what might happen if anarchy should prevail. But as Christianity came in to save the world when Rome and the ancient order fell, by proclaiming immortality, so now the idea of plasmal, which comes by better breeding, and of influential immortality, that saves by contributing new knowledge and power—these constitute our only hope of salvation. The promise is to those who seek, knock, ask, and it is still open to the investigator, who is its true heir.

Man had a most insignificant origin—a finger-long worm with a withy spine; then a timid, tiny frugivorous creature for whom there was no safety save in trees. Then there was a long and doubtful struggle whether he or the great carnivora should be lords of creation for he was few and his enemies many. But during all this time he was acquiring unprecedented power of docility and adaptation, and the evolutionary urge focused on his species as its own chosen son. For ages, too, he quailed before creatures of his own imagination which he fancied real and potent, and only now is he beginning to realize that he is truly supreme in all the universe we know and that there is nothing above or beyond him. Thus, progress consists solely in the subjection of nature to man and of his own instincts to reason and his selfish interests to the common good, and man sees his destiny, which is to rule the world within and without by the power that comes from knowledge. He must go on learning to control where he has been controlled. This is his vocation as man. As the development of erect-

ness and of the hand, which could grasp the club and impel the point of flint, first made him man, so now science is both his organ of apprehension and his tool by which he must make his sovereignty complete, come fully into his kingdom, and make his reign supreme. Thus, again, we see that research is his highest function. He is and always has been the investigator *par excellence,* and now he sees his calling and election more clearly and in the new era which is upon us he has new and unprecedented motivation for mobilizing all his energies to make his title of conquisitor clear.

If the spirit of research be the Paraclete, the native breath and vital air of all true leaders in the world now being born, we ought to know more about it. What, then, is it? It is not sufficient to say it is creation in its most modern active stage, impelled by the same primal impulse by which worlds evolved out of chaos, nebulæ, or any other mother-lye. This is true but trite. If any kind of superman is ever evolved, and the man of the present day is destined to become a missing link like the Java man, nurture must come to the aid of nature with every hebamic art that eugenics and education can supply, even though our remote posterity be as ashamed of having sprung from us as some still are of our simian ancestry. Curiosity, seen in all the higher forms of animal life, so strong in apes and so favored by their safe arboreal life and which harks back to the original *fiat lux,* is surely one factor in the psychogenesis of the research urge. Strong as this noetic urge is, ambition, emulation, and the desire to excel is surely another factor. Perhaps the hunting and collecting instinct made their contributions to it. Philanthropy or the desire to better the estate of man and to give him command of new resources is yet another element, and this has countless lower though always beneficent

expressions in the impulse to alleviate suffering and in the amelioration of the tragedy in the grim struggle for survival. But the ultimate motivation of the investigator, often deeper than his consciousness, is the will for power to dominate nature and to make man ever more completely ruler and master of the world within and without. As man is the highest and best and as mind is the best thing in him, so research is the supreme function of mind, the true heir of the kingdom and of all the promises. Research specializes because it must divide in order to conquer. It makes such conditions for its experiments as can be controlled and excludes all others. We refine our methods and apparatus only in order to make such answers as we can extract from the memnonian lips of the sphinx more definite and explicit. Despite its baffling technic, science is, as Vähinger long ago so convincingly showed us, the quickest and easiest way of grasping the universe.

In view of all this we must regard nothing as quite so opportune or so true an expression of the *Zeitgeist* as the efforts to perfect the organization of the National Research Council in this country, the British Privy Council of Scientific and Industrial Research, and the international reorganization at Brussels to the same end. There are countless new problems in astronomy, geography, geology, archæology, anthropology, economics, and in many other fields that can be solved only by wide coöperative methods, which often also require large funds, wise administration, systematic publication of results, and the spur, which pure science in a measure always lacks, of immediate utility, for every new discovery possible must be made known and serviceable.

It is inspiring to be authoritatively told that whereas fifteen years ago there were only four thousand individuals in this country who could be called

investigators, there are now more than ten thousand who would be called such, and also that there are yet possible "finds," sometimes of great value, that can still be made even by amateurs and nonexperts whom chance or locality favor, and that more can be recruited for this army of advance by questionnaire or correspondence methods. The prospector, placer-miner, still has his place in any comprehensive survey of research planning, and this work needs a consistorium of its own.

But we must not forget that the true spirit of research at its best can never be organized or administered and that to do so suggests simony, the sin of seeking to purchase the gift of the Spirit with money. Its very essence is freedom, and we can no more organize it than we can organize love, art, literature, or piety. The investigator is a law unto himself, and he must often shatter old tables of value and propound new ones. "The spirit bloweth wherever it listeth and we can not tell whence it cometh or whither it goeth, such are they who are born of the spirit."

Now, universities are to-day, or should be, true shrines of this spirit and nurseries of these supermen. Are they? Over two hundred of them have lately made "drives" that have brought generous and greatly needed increases of salary to their professors. Labor, too, has doubled its wage, but the complaint is universal that along with increased pay has very commonly gone a decrease in the quality and quantity of efficient work or service rendered. The worker "sojers" more on his job, and not only the hours but the amount of work per hour have decreased; as has also the quality of many kinds of goods along with the rise in their price. The bricklayer is now penalized by his union if he lays more than one fourth the number of bricks perday that he did when his wage

was half its present amount. The same progressive inefficiency with increased wage is widely prevalent.

Are our faculties to illustrate the same tendency? In a number of presidential reports I have lately looked over I find no word of warning against this danger, no hint that to whom more is given will more be required, no exhortation to investigation, but usually the old cry for more, ever more gifts. Not content to stand hat in hand on the street corner, academic agents and presidents appeal to every graduate, poor as well as rich, to give, until they are made to feel that they are ingrates or disloyal if they are unable to do so. These reports often complain of a great influx of students, and all our larger institutions are already too full for efficiency so that some have even forsworn new departments or set a limit to the rush of students. Two reports express the fear that the average quality of the latter is declining, and one deplores the increase of mechanism, bookkeeping, and deans' functions generally, which are necessary for the regimentation of the mob of new applicants. One very competent expert has studied the programmes of the meetings of various scientific societies during Christmas week, 1921, with the result that several show in recent years a very marked increase in the percentage of papers read by nonacademic men (80% now in one of the largest and oldest of them), which is not surprising when we consider the great number of professors now being lured away from colleges and universities by larger salaries offered them to become experts in industry, which has apparently just now awakened to the need of specialists.

Now, if there is any one general lesson of these tumultuous times, any conclusion that underlies and conditions all others—as I insist there is—it may be stated very simply as follows. Henceforth, as never

before, progress is committed to the hands of the intellectuals and they must think harder, realizing to the full the responsibilities of their new leadership. Science in its largest sense is from this time forth to rule the world. The age of *laissez faire* is ended and research, discovery, investigation, and invention, which have done much already, must now take the helm and be our pioneers in this new era. In everything it is the expert who must say the final word. Thus our prime duty is to inventory and especially to develop and devise every possible new way of fostering the spirit of original research in this new day that is now dawning upon the world, and in which it is the inestimable privilege of this generation to live. We cannot too clearly realize or too often repeat that research is in the very center of the current of creative evolution and has the momentum of all the developmental urge behind it. Its spirit is to the new era what the Holy Ghost was to the early church. Once it made prophets and apostles, inspired visions, sent men to waste places to meditate as hermits, anchorites, ascetics crucifying the flesh, or impelled them to challenge rulers or to become martyrs. Now it inspires men to seclude themselves in laboratories, museums, studies, libraries; sends them to remote and perhaps hostile and dangerous corners of the earth to observe, collect, excavate, decipher, reconstruct extinct animals from fossils or fragments of bones and teeth, or to restore prehistoric life from vestiges and utensils in caves, cromlechs, relics of pile-dwellers; or to reconstruct temples, palaces, dwellings, and even huts from their buried foundations; perhaps to explore the sources of mineral, agricultural, and industrial wealth; or to study and control the ways of and antidotes for new microbes, insect pests and toxins. Human culture began with the attempt of man to understand his own soul, its nature and

destiny; and to this was soon added interest in his body and its diseases. Now we are studying his relations to his home and his mother nature and his social, industrial, and family life.

When I lately asked my dentist why he hurt me so cruelly now when the same operation on the other side eight years ago was painless, he replied that now he had to use American instead of German novocain and we have not learned to make the pure article. In looking over Kahlbaum's catalogue of hundreds of chemical compounds necessary for every research laboratory, I was told that only a very few of them can even yet be produced outside of Germany and that our chemical industries have focused upon nitrates, dyes, and other large-scale products that bring great profits, and have neglected most of the others.

Turning to other departments, ever since the Reformation German scholarship has led in all Biblical studies, giving us the higher criticism, and its preeminence has been no less in the study of classical texts and history. Our professors of philosophy have largely concerned themselves with problems of German origin from Kant to Schopenhauer and Nietzsche. Biological work has for two decades focused on the theories of Weismann and Mendel, both Teutonic. In every psychological laboratory the name of Wundt outranks all others, while Freud has more lately given us another group of great ideas which are working as leaven not only in the studies of mind, normal and abnormal, but in our conceptions of art, literature, daily life, history, and religion. Students of the exact sciences are agog over the theories of relativity as represented by Einstein and the even more revolutionary concept of quanta, also of German origin. For decades our best graduates who desired to specialize studied there and a large part of our professors have been trained there, so

that the apex of our educational system was long found beyond the Rhine.

All this preëminence was in accordance with the policy laid down by Fichte only a little more than a century ago in his famous address to the German nation when Napoleon had annihilated the Teutonic armies, crushed the German spirit, and his spies were scattered through the very hall. Fichte's thesis was that Germany must become *the* educational leader of the world and must thus rehabilitate herself from bottom to top and understand that her only possible way of escaping obscurity, if not annihilation, was research, her only asset was in the truth to be discovered and new powers to be utilized. In a word, her soil was poor, her armies gone, her finances ruined, her spirit near despair, she was without natural or even racial frontiers, and the gospel of Fichte, the "presentifier" of his day, was that all the power she could ever expect in the future must come from knowledge—that her specialty must be in its creation and diffusion. And the world knows the result of this policy, which in a century made his country the strongest in all history, which never saw so sudden and great a national regeneration in the same short span of years.

To-day this leadership is gravely impaired and possibly forever shattered, and it is craven and imbecile not to see that the situation brings a new call to this country, now the richest and most prosperous in the world—spending more money for education than all Europe combined—to aspire to this succession, to pay back our intellectual debt, and possibly to bring the keystone of the educational arch to this country. Of course we must not forget, as Kuno Francke and Walther Rathenau remind us, that Germany in her present distress may again hark back to the gospel of Fichte and seek to renew her strength

by a yet more intensive development of culture, and hope to sometime achieve a new intellectual conquest of the world, such as she was so far on the way toward achieving when she turned from culture to Kultur and, at length, not content with this, made her supreme error of appealing to the sword. Of course science is universal and knows no national boundaries, but our nationality, whatever it is and is worth, has here a new opportunity undreamed of before.

Not only does democracy, if it is to be made safe for the world, require education of its citizenry much above the mental age of thirteen and a half, which was the average of our soldiers tested (and we have even been called a nation of sixth-graders) but every land—and this most of all—is now crying out for new leaders in every department. Our statesmen need broader training in international relations for they show every symptom which alienists find in all minds grappling with problems too large for their powers. Our captains of industry need to look farther afield and farther ahead. The waste of incompetency and the curse of mediocrity are upon us. We have utterly lost all power of discriminating between the best men, things, ideas, books, and the second or even the tenth best.

The psychology of the whole matter is that we love knowledge because we love power. As man has domesticated some scores of animals and some two hundred species of vegetable life, using for his own benefit the resources derived from all these fauna and flora, so he now strives to command the powers of nature and to really become the captain of his own soul. Competent engineers tell us that the average individual to-day commands some thirty-three man-power besides his own, whereas a century ago all inventions gave him command over only two and a half times

his own strength. But ever more is and will be needed although waste also increases, and all we have known and controlled is only the beginning. Man is really only just starting on his career as an investigator so that research is not only the apex of creative evolution and the highest vocation of man but is the greatest joy that life affords to mortals. He who reveals and teaches us to command more of the world without and within is the chief benefactor of the race, the true prophet, priest, and king in our day.

Now, the university should be the chief shrine and also the power house of this spirit, where the higher powers of man have their chief deployment. There is a final lesson from the church that we ought to lay to heart. Beside and above all its elaborate medieval organization, even when it was at the height of its power and aspired to universal dominion, its greatest leaders always felt that above and beyond it was the larger Church Invisible, eternal, not made with hands, the membership of which consisted of everybody, everywhere, who strove supremely for righteousness and truth. To-day we should give a similar place in our scheme of things to the University Invisible, composed of all those everywhere who are smitten with the passion of adding something to the sum of the world's knowledge, even ever so tiny a brick to the splendid temple of science which is the supreme creation of man, but who also realize that of this temple only the foundations are yet actually laid and that the most imposing part of the structure is not only not built but cannot even be completely planned. The members of this new church of science are those who feel the call to make some original contribution of their own toward either its plan or its further structure, for the true university is, after all, only found in the investigator's state of mind. All through the history of the church,

as Renan has shown, ran a faith generally submerged but which had many timid outcrops that in the fullness of time there was to come a new, third dispensation superseding the old, namely, the dispensation of the Spirit. It is that into which we are now summoned to enter. Have we the virtue to hear and heed the call? [3]

[3] These last pages are reprinted from the *Scientific Monthly*, August, 1921.

CHAPTER X

LOOKING BACKWARD AND FORWARD

Difficulty of combining esoteric academic science with its popularization so needed in a democracy—Differences in the receptivity of students from the South, the East, New York, and the West—Teacher audiences in Canada and Great Britain—Effects of the war upon pedagogy—School legislation—The characteristics of students from institutions of different types, Catholics, Jews, Japanese, Norwegians, Germans, from the Y. M. C. A. College and Vineland Training School, etc.—Girl students at the University—The difficulties of religious readjustment—Mobilizing the minds of the orthodox and pietistic, the mystic and dogmatic—Older students out of a job—Library meetings and the demonstration of books—The seminary again—Research versus teaching—The University Invisible—The rapture of discovery—Attaining mental majority and getting the mind into independent action—Second-breath—Circulation of theses—How to really read—Dangers of overeducation—My Teutonophilism cured by the war—The great mistake of Germany—Our duty to try to fill the now vacant throne of research—My too critical attitude—Severe criticisms to which I have been subjected—Alternations between activity and passivity—Seeing the under-world and the seamy side of life—The stages of life considered as boxing the compass—Disappointments and obstacles—Interest of the different stages of life in the time factors, present, past, and future—Taste for the simple life and dread of the open—Limitations as a "mixer"—Influence of poverty and of wealth—Estimate of the latter—Influences that made for isolation.

During all of my more than forty years of active academic life I have had to work with two very different classes: first, graduate students specializing in psychology (for I have never done much work with undergraduates) and, secondly, popular audiences, most often teachers of all kinds. The needs of these two classes have very little in common, and

any presentation that would satisfy the one would fail to appeal to if not actually repel the other. This it took me long to learn, although I have always insisted that there was something the matter with any specialist in any department whatever who could not, if called upon to do so, make his topic more or less interesting and intelligible to laymen and even to bright children and youth, and that he would himself gain something in perspective and the humanistic touch by occasionally taking his own greater interest thus into the open—indeed, that something of this was the duty of every expert, particularly in a democracy.

(1) In my vacation peregrinations and colporteuring I have been struck by the great difference in spirit and temper between representative teachers (individually and groups of them) in different parts of the country. In the south they belong, on the whole, to a higher social class than in the northern and especially the northeastern part of the country, the women particularly often representing the best old southern families. They are charming people to meet, with often many of the social graces that characterized the best of the white race in the south in the old ante-bellum days. They are less prone to regard teaching as a trade or a life vocation, take less to specialization, are less likely to overestimate the relative though always subordinate importance of organization, method, uniformity, etc., and often contribute to their pupils rich gifts of personality which are both more infectious and more supercharged with morale than with erudition. They are, perhaps, on the whole, more efficient in primary than in high school grades, and in the latter college domination in the south, if less, is, on the whole, more beneficent.

The east, especially New England, is the stronghold of educational conservatism. True, there have

been many fads which have run riot and even spread throughout the country from this center, and many beneficent influences long made this section a leader and a light. But all new ideas must here generally pass through a rather long probationary period, and there is such a sense of achievement and attainment that it often blocks the wheels of progress. Here specialization is most advanced. Teaching is a more permanent occupation and the average age of those engaged in it is greater—I have personally known several who have been thus occupied for more than forty years. Change is hard and, as I have often realized to my chagrin, new ideas that were welcomed in other parts of the country were somewhat discounted here. Discipline is more strict. The percentage of female teachers in this region of superfluous women is greater than in most parts of the country. There is strônger aversion to criticism, and even minor changes involve more discussion. New York state and city is the stronghold of mechanism. Organization here has done and, in my judgment, overdone its work. In lecturing, as I have done in most of the large cities of that state, one is prone to hear everywhere the click of the pedagogic machinery. Excellent work is done, but there is far too little recognition of spontaneity, too much prescription, too great insistence upon units, uniformity, and time requirements (everything being measured by hours, years, and averages) incessant and exasperating marking, etc. New departures are instituted from above. The high school has been, by a most elaborate scheme of entrance examinations, kept more completely under the thumb of the college, and special talent on the part of the pupil or initiative on the part of the teacher finds the way to adequate recognition hard.

In the middle and far west the spirit is very dif-

ferent. Here the teachers are young, or at least have more of the enthusiasm of youth, are eager and receptive. The chasm between ideals and practice is greatly narrowed. Even negative criticism, if at all judicious, is always listened to and welcomed. One meets everywhere those who have new and original ideas who have often been allowed to carry them into effect. They travel farther to teachers' meetings and take with them a greater enthusiasm. The machinery is less in evidence and less tyrannical. The female element is everywhere more recognizable and potent, even if male teachers are more numerous than in the east. The chief academic influence is from the newer state institutions and not, as in the east, from the older, more conservative, endowed foundations. One hears less of culture for its own sake in the west and much more of practical preparation for life. Western universities have very few students who are intent chiefly upon their own personal culture or who are sent rather than go to college, and hence there is less energy spent upon the agencies which enforce attendance and application to work. The higher institutions respect and accord far more liberty and autonomy to the secondary, and a strong individuality marked by original ideas has a better chance for deployment and recognition. The future weighs relatively more than the past, the precedents of which are less firmly in the saddle. The life of the community flows more richly through educational institutions of every grade. This was strikingly seen in the influence of war activities upon the school, as I tried to set forth in my *Morale* and as Gary well illustrates, though not perhaps, on the whole, quite so well as Hampton or, best of all, Atlanta. The lofty and very abstract philosophy of William G. Harris and the reorganization of the St. Louis schools that it led to, and the Dewey school and its philosophy, could never have

acquired their vogue without the *élan* given them by the vital west. Perhaps nowhere in the world, not even in Germany, is legislation in such close and vital touch with education as there, where everything, from the state university to the kindergarten, depends upon annual appropriations; and in nearly every state scores of new regulations and provisions, or modifications of old ones, are annually made, although the regimentation is very rarely detrimental. In the west the idea that success in life depends upon schooling is, on the whole I think, more developed than in eastern institutions; at any rate, it seems to be more effective and incessantly active.

Canada, on the other hand, where I have made several educational tours, is, like Great Britain (in various parts of which I have also met and addressed teachers) the most conservative of all. Here much progress has been made in late years, but with great difficulty and sometimes supplemented and accelerated by the private endowment of special institutions representing new ideas, to which Canadian, like English, teachers do not, on the whole, seem to me to be very accessible. Everything at least must be interpreted according to their own norms, traditions, and precedents, and conservatism is even more in the saddle there than in present-day England. The universities, at the chief of which I have spoken, are doing excellent work, but fashions are set according to English standards and not a few chairs are filled by *savants* imported from the mother country, the best of whom long to and often do go back, so that one cannot escape the sense of educational provincialism. Education here is vastly indebted to a few beneficent and very wise founders and the work of federating various higher institutions, which began more than a quarter of a century ago at Toronto, has been very helpful from the standpoint of both economy and education.

(2) With all my psychological students, particularly those majoring for either of the higher degrees with me, I have come into the very closest personal and sometimes almost daily relations, and during all these years I have noted certain very marked differences, not only in individuals but in groups. Those who have gone into university work directly after college graduation have most mental plasticity, besides the advantage of having their undergraduate studies fresher in mind. The other class of postgraduates, probably larger, is composed of those who have been out of college for one or sometimes a number of years actually engaged in some vocation—teaching, preaching, occasionally practicing medicine, and more rarely in social, business, and other fields. These, who have generally resigned or obtained leave of absence from salaried positions in addition to incurring expenses of added years of study and often married, know more exactly what they want, besides having the advantage of added maturity and experience of life. Their very presence at such sacrifice testifies to their earnestness and ambition. Occasionally, though not very often, these students have acquired a certain rigidity that interferes with docility, and they sometimes find it hard to get their minds into independent activity. In one or two cases the incommensurability between the desire to obtain new standpoints and to be up-to-date in their lines, on the one hand, and their receptive and assimilative capacity, on the other, has been almost pathetic. On the whole, however, I am inclined to think that in the field I represent the advantage lies with the maturer class, although in the exact physical sciences the reverse may be true.

There is often a very marked difference due to the college in which the previous training was received. Two or three institutions of very high rank

have for years sent us choice graduates who in all departments had been so accustomed to learning and appropriating what was given them that they were almost phased by the lecture system which prevailed here, and often craved definite assignments of reading and sometimes even invited us to test them on it. The idea of a thesis which aspired to really contribute something seemed so far above and beyond them that it was difficult for them to believe that our assumption that all could make at least some slight contribution to the sum of human knowledge was anything more than a delusion which we fostered as a pedagogic device. Such students rarely brought facility in reporting on digests of reading but more easily acquired it. This ability to command library resources in running down subjects wherever they lead is, of course, a marked step in advance of the old method of getting up single textbooks. But the thought of making any original contribution, or a realization of how the frontier of knowledge really looked, was quite beyond them. Thus we have always had those who were more or less paralyzed by their very acquisitions, meager though these might be. At the other extreme are students, more often from smaller and perhaps western institutions with a meager curriculum, who, unembarrassed by the constant envisagement of things they did not know, threw themselves into research with abandon, actually favored by the limitations of their knowledge, and these sometimes succeeded, in the end, in doing far better than they knew.

Students from Catholic institutions particularly have many and often long readjustments to make when they enter universities. Their type of mentation was very commonly patterned on formal logic, and their adjustment to the intellectual freedom they found here was sometimes particularly hard. Their

studies in the history of philosophy had generally stopped with or ceased to stress, save very negatively, all systems since St. Thomas. I never required them to attend my courses on evolution and some availed themselves of this dispensation, and those relatively few in number who went beyond the Master's degree have in some cases developed a very high proficiency in laboratory and analytic psychology. They generally come to us with more respect for the authority of the professor's utterances than the Protestant students. For both, but especially for the Master's dissertation, I have often advised Catholic subjects, and we have had from this source very illuminating expositions of the profound psychology that underlies not only the confessional, which has so many undeveloped points of contact with psychoanalysis, but many forms of the church ritual and ceremonies, which are such a rich mine of symbolism, etc.

Of the Jewish students, always keen and alert, it has seemed to me that those of the orthodox are, on the whole, more docile than the liberal type. Both, however, have the keenest instinct for all that is new as well as unusual powers of adaptation to it. Japanese students are generally remarkable for their patience, perseverance, their deftness in manipulation of laboratory apparatus, quickness to catch suggestions, etc. Some of them have a very marked originality, besides a marvelous power of adaptation to western ways and assimilation of western ideals, despite the serious handicap of language, which they show very diverse degrees of ability to overcome. It is doubtful whether, on the whole, their average quality has improved in recent decades, during which so many have come of their own initiative as compared with those of an earlier day when the best were carefully selected and sent by the government. The Japanese policy of sending students to all the ad-

vanced western countries was unprecedentedly broad, and their exclusion from Germany during the war, which has sent more to us, has given this country a new opportunity to connect the east with the west by doing the best we can for them. The few Chinese students I have had have been very picked men of rare quality.

Scandinavian students are marked perhaps by the greatest persistence of all. They are able and well-trained but prone to rather excessive independence, with a disposition to take their own themes and treat them in their own way, so that they need to be given a little more leeway in this respect than others. My own German students have been excelled by no other class. In preparatory training, in insight, power to think coherently and to carry out studies to their practical conclusion, they are not surpassed. Of students from India, Italy, South America, Russia, and France I have had several, but too few to afford a basis for any racial characterization.

I should not fail to mention here the graduates we have received from the Y M. C. A. training college and from Vineland, the training of the one being exceedingly general and that of the other, specific, so that they have little in common; but the best products of both have always stood high in my own estimation.

Girls, of whom we have always had a few in the department, have acquitted themselves quite as well as if not, on the whole, a trifle better than the young men, even in research. They are extremely conscientious, open-minded to suggestions, assiduous workers, good critics, perhaps a trifle more influenced by personalities but always able to hold their own in seminary discussions and, as years go by, increasingly free to face delicate social and moral problems, and perhaps, on the whole, a little less likely to lose the

firm anchorage of common sense in the troubled sea of technicalities and methods, although always extremely loyal, sometimes excessively so, to the latter.

In my own field of work in education, and especially in psychology, the religious standpoint of the student has always been an important factor. Although there is neutral ground unaffected by these predispositions, both extreme orthodoxy and pietism have generally proved somewhat of a bar to those who would penetrate to the additum of psychology. The pietist finds it hard to intellectualize sentiment or emotion into what these really mean, and certain pet phrases, often scriptural, come to be supercharged with meaning in such a way that in their affective life there are ruts which it is hard for them to escape; while with the ultra-orthodox there is generally a lack of the intuitive insight which is more and more essential for the up-to-date psychologist. Thus, mysticism and dogmatism both have their limitations, and the problem of mobilizing such minds often taxes the sagacity of the teacher to its uttermost. But where this is successfully accomplished, as it often can be, there is a great and glorious sense of emancipation and gratitude. Thus, those who attempt to guide studies of the human soul face problems of which other departments know nothing, and there must at first be an unparalleled knowledge of and adaptation to the most diverse individualities. But if this work is uniquely difficult, its rewards are no less unique because they are seen in forms of enlarged personality and new attitudes toward life, together with new motives and new means and fields in which it can be effective.

Every year I have had one or more post-graduates, often the most advanced of my students, who have come to the University because they had lost their positions elsewhere or perhaps were dis-

couraged about getting the proper start or advancement. A few of these have stayed on year after year, growing more and more anxious every May and June, when most academic openings occur, because the right thing did not come to them. Only a very few, generally those of the most mature class, have become discouraged and left to enter business or other careers. One actually committed suicide, and I saw another slowly lapse, by gradual stages, into chronic melancholia. The task of heartening such men to make the very best use of the enforced prolongation of their apprenticeship to learning has been one that has sometimes not only taxed my ingenuity to the uttermost but even beclouded my own mind with an oppressive sense of peculiar responsibility. Most of them have been able in the end to make a virtue of necessity and to struggle on and win their way to ultimate success, and some of my most delightful memories are of those who have faced down their worries, kept hard at work, and in the end been able to write me that they were filling positions with far more satisfaction to themselves and others than would have been possible but for this long delay. My own experience with hope deferred has, I think, made me more sympathetic with and helpful to such men.

I have occasionally held library meetings in my study, where after some preparation I simply demonstrated books, a little as if they were specimens in natural history. Standing before a case I would go through it shelf by shelf, taking out the important books that had influenced me, perhaps reading choice sentences or epitomizing, passing the volume around, always with some special thought of the personal or thesis needs of each student. I have occasionally done this, too, in the library alcoves of the University. This *encheiridion* or actual handling of books, articles, or chapters has a certain stimulus, and I have

always allowed students to take books and papers from my own library, sometimes to my inconvenience; and often, to my sadness, I have discovered a certain laxness of the biblic conscience that returns books. But the effort always has been to put the student on my shoulders and in a sense to enable him to begin where I left off.

Into a well-conducted seminary have gone the hereditary influences of all the council campfires and story-telling of our forbears and a little of the esoteric spirit of the secret organizations of savage life from the immemorial past, from which the medieval academies sprang when they had to be secret; and in this new-old and complex pedagogic instrument we have one of the highest expressions of culture in modern life. There is the interplay of personalities, temperament, age, sex, and general philosophic and religious standpoints, and that just at the stage when inner disposition is most fluid and plastic. There should be no reserve and the talk should be not only of mind to mind but, on occasion, of heart to heart and conscience to conscience. There is a vagueness and mysticism about youth which is inevitable at the time when sentiment is ripening into thought and reason, which has nothing in common with the settled creed of mystics; just as there is honest doubt and questioning which have nothing to do with skepticism. To mistake these two is a serious error. The rabulist, the sophist, the debater, the man of saturated orthodoxy, the literalist, and the dullard will all be held in check if the seminary is rightly pervaded with the "phenomena of altitude."

But it should never be forgotten that the spirit of research is the native breath and vital air of the university invisible, that those who can really create are a class just as distinct from teachers, students, and all dealers in second-hand knowledge as manufactur-

ing is distinct from the distribution of goods. The investigator feels the pristine sense of freshness and newness in the world which we often postulate for the primitive Aryan, the ideal Arcadian, and Andalusian, which are suggested by springtide and by youth. The sensation of discovery brings this all back and gilds the world again with an old and forgotten glory, for it is the most intense pleasure of which noble souls are capable. This is the mandate of the university as distinct from the college or every other institution. Indeed, the true university is or ought to be the chief and fittest organ for the evolution of the true superman, and without this at the top an educational system is a truncated and arrested thing. In these seminaries of the soul humanity blossoms and yields its choicest fruitage. Here youth learns to scorn the luxury and selfishness of mere knowing and attains the higher maturity of doing, which is the real organ of knowing in our pragmatic age. He learns the vanity of merely remembered attainments that have to be carried and do not ripen into the power that carries. To accomplish this result is the highest of all pedagogic problems. It may be helped but can never be insured by research councils or any other external devices.

I even hold that a young man who has made and published a real contribution should give some special attention to finding his own audience by selecting far and near in his own land and abroad a list to whom he should send his reprints and be given certain suggestions about creating a constituency by exchanges and correspondence, getting into touch also with academic officials liable to be of service in forwarding his career and of journals likely to pass judgment upon his endeavor. Thus the printed thesis sometimes serves a young man like a modern *toga virilis*. In it he first steps forth into the arena, throws down his gauntlet,

has attained his majority in the mental republic of learning, and even though the rest of his life be spent on the lower plane of teaching he has felt what real achievement means. To have once felt that he had been where no one else ever was before, had done what had not been done before or done better what had, the experience of piloting oneself in unknown seas, a glimpse at the frontier, gives a taste of the rapture of intellectual procreation so that the whole culture world is invested with a charm which it would otherwise not have had, which will always beckon and will make the dull world of prosaic commonplaces seem stale and unsatisfactory in a high Platonic sense. It is not enough to accumulate, in the old Baconian trope, data like the ant or spin theories from within like the spider, but the activity of the bee that works over its collections with the aid of inner secretions is the better symbol. To merely multiply slides or tests mechanically is no better than the work of a day-laborer or at best a bookkeeper, and alas for the young investigator who does not show signs of thinking or intuiting beyond the data which his method or apparatus supply, for laziness often hides under the guise of scientific reserve. Speculation means merely looking about and instructors should never forget that there are two needs: one, that of science, which needs discipline and cold reason, while the other is found in the fact that the very nature of youth needs to be somewhat viewy and interested in ulterior problems.

Thus there is a sense in which the very guesses of *élite* youth are more precious for them than the triply distilled products of the laboratory, and not to utilize this power of divination is for youth to renounce its heritage. It must submit to the severe logic of science, but this is a servant and should not mutiny and subdue its master. To falter because a broader basis

of fact is desirable or with the fool's hope of more leisure, of more incentive later, or to defer coming to terms with problems hoping that greater maturity will bring insight, is sometimes a mortal sin against the scientific imagination, sterilizing the buds of originality. Studies of mere enumeration or tabulation are often of little more value than the reports of isolated medical cases that abound in the literature of that profession, for the writer seems to live in the hope of a coming redeemer who will build all his material into a larger system and see its wider meanings and clothe all its defects.

It has long been known that in many kinds of skill, as telegraphy, shorthand, etc., the learner may reach a kind of saturation point on a level below that required of operatives and above which he thinks no amount of humdrum practice can raise him. But in such hidebound cases a long intense cram with extra hours and exceptional conative energy breaks the charm and brings him suddenly a great increment of maximal speed so that his entire efficiency is permanently increased. This is the analogue of what ought to occur in some late stage of every attempted investigation on the part of the student. He must throw himself upon his theme with all the momentum of which he is capable and with no reserves till he feels the fever of the second breath which will inaugurate a higher and perhaps epoch-making intellectual experience, for it is in such forge and heat that very many of the great discoveries have been wrought out; and those whose psychophysic organism is such that they cannot sometimes scud for a time in a mild brainstorm, with all sails set and every cord tense yet without danger, must resign themselves to the career of those who may be good but can never hope to be very good.

The same is true, in a sense, of reading. It is a

great power to be able to really read and take in others' thoughts from the large human environment unchanged, even though in the best of us what comes from this source may not be as completely assimilated as that which comes from our own lives and from inner spontaneity. He who can truly read does not have to learn everything for himself. He can feed and fire his soul because he has the urge of philosophy or wisdom of life behind him. To do this one needs a kind of exquisite mental olfaction that finds its way to the best things. Many read merely to accumulate or to etch or veneer the soul with learned citations or pedantries such as, in the days of superficial scholarship, were the earmarks of learning. Complete reading involves perfect digestion and assimilation. The powers of higher apperception are chiefly taxed, and the objects apprehended are speedily made over into the power that apprehends. Here men differ immensely—masters of knowledge from the servants, those who truly know from those whose minds are mere memory pouches. The masses only gather at the foot of the mountain; some ascend a little way; but only the few *élite* can scale the summit above the clouds and bring down the tables of the law. On the other hand, we have every type of mental dyspepsia and some of the most omnivorous maws digest very imperfectly and on a low plane, while mental eupeptics distill the perfect culture that refines and, it would almost seem, becomes so much a part of the soul and even the body that it must affect posterity by the primal method of heredity. If so, there is a true aristocracy of mind above all the peddling knowledge of the schools that examinations can never give or test.

Diplomas, notes, high marks, and degrees designate only a knowledge that is superficial and perhaps vulgar and which may be attained by the upstart

nouveaux riches who are not used to it and who are only made conscious, conceited, and unpractical by it, who have perhaps sacrificed the best thing in them, namely, naïve and intuitive wisdom and some common sense, which is the muse of American manhood and womanhood, to get it. This psychic wastage illustrates the dangers of great ideas and facts in little minds, and there are many students at all stages, in my humble opinion, in every community who would be better morally, healthier in body, and more wise in all the higher meanings of sapience if their souls had not been made roily at the bottom or frothy at the top by overeducation. Blasphemous though it may seem to the pedagogic guild, I have long been convinced that there were many children in every community who would be healthier, happier, and more useful citizens had they never been to school at all; that many others are injured more than they are benefited by the high school; and that there are many boys who never ought to go to college and many Bachelors who should never enter the professions or the university, both for their own good and that of the institution as well as for that of the professions. Indeed, I am tempted to go farther and query whether the ideal of the scholar as a man who merely knows a large body of any kind of knowledge is a normal type of man; whether he is worthy of being held up as a model to the young; and whether he should not rather be considered as a miser or a mere antiquary unless he uses the material with which his mind is stored as apparatus for additions to the sum of human knowledge, or at least unless he puts his intellectual possessions to work. Perhaps we might go even farther yet and ask whether, as we now understand the psychology of knowing, useless knowledge is not an encumbrance from which the mind should be freed as far as possible and especially when action impends,

and whether mere bookishness is not always pathological. The characterization of a scholar as "widely read," if that is his chief characteristic, is a compliment of doubtful value.[1]

(3) Owing to my six years in Germany and my perhaps excessive deference to German authorities I used often to be called a Teutonophile (and I certainly owe an incalculable debt to that country) so that the outbreak of the war, and perhaps especially the Manifesto of the nearly one hundred German professors, came to me as a great shock. It seemed incredible that these men, some of whom I had known personally and for most of whom I felt the greatest respect, should be swept so far from their moorings by patriotic fanaticism as to sanction the monstrous aggressions if not the atrocities of their military leaders. It appeared incredible, too, that a country which by its science and its marvelous technical skill was so slowly and surely attaining the intellectual and even the industrial leadership of the world, should not be content with this but should cast the sword into the balance and attempt the material subjugation of its rivals. The calm assumption, too, of superiority and superhumanity justifying the policy of ruthlessness seemed to me to indicate that Germany had given a most fallacious and one-sided interpretation to the doctrine of the survival of the fittest and had not only entirely ignored nature's other lesson of coöperation, which made Kropotkin quite as true a disciple of Darwin as Nietzsche, but that the crime of plunging the world into the war would jeopardize and even destroy all the higher intellectual influences which were slowly leavening the world from that country. The triumph of egoism in the crass Max-Stirner sense seemed to me to show that *Kultur* had become

[1] See my "Confessions of a Psychologist," Part I, *Ped. Sem.*, 8: 92-143.

the enemy and the nemesis of true culture, that there was something fundamentally wrong with the Teutonic soul, and that since the Franco-Prussian War of 1870 the Teutons had turned their back upon the traditions of their own golden age of philosophy as represented by Fichte, and of humanism as represented by Goethe, and become possessed with a malign demon of destruction.[2]

Thus, as with so many others, my proclivity to perhaps overemphasize the beneficence of the influence of the German mind in the world was more or less reversed, and as the war closed I came to feel more and more that this country was the hope of the world and that the period of sitting at Germany's feet should end; that we now had a new call to leadership in the world's higher culture; and that if we realized the larger lessons of the postbellum period we should awake to the fact that the world now called us not only to the moral and spiritual leadership (which is best illustrated by Wilson's "Fourteen Points" and which made him at first acclaimed throughout Europe as the leader of a new dispensation for the world) but that our institutions of learning and our leaders of thought must take up and carry on the work of culture to which Germany had brought discredit if not bankruptcy. This new opportunity and incentive it has been increasingly hard for even our academic leaders to see or feel the full force of. They have realized the necessity of larger material equipment but have not understood that the throne of true culture is now in a sense vacant and that if our democracy cannot qualify to fill it we shall sooner or later see the *mene, tekel, upharsin* written on our walls. Culturally the king is dead, and the all-important question now is

[2] See a remarkable confirmation of this view by one of the most sagacious leaders of post-bellum opinion in Europe—*The New Society* by the late Walther Rathenau (1921), especially section 9 *et seq.*

who shall succeed him. American science has perhaps too long sat at the feet of Germany and has become a little too used to its tutelage. Perhaps we have not sufficiently realized how the spirit of pure science which once animated the Teutons has been superseded by technical expertness in its applications. It would be sad, indeed, if instead of renewing devotion to it we, too, followed the trend, never so strong in the world as now, of mistaking *Kultur* for culture and exalting technology above humanism.

Never was there such a need and opportunity for developing the higher powers of man as now and in this land; never such need to go back to first principles and ask again what human nature, so vastly older than all its institutions, really is, means, and needs—in a word, to realize the hegemony to which the Anglo-Saxon race, and particularly our own beloved land, is called to assume. Although there are many discouraging tendencies already apparent, there is still hope that when the starving children and adults in central Europe and China are fed; when peace, industry, and exchange are organized; when we have become more accustomed to think and act in terms of world-wide interests; and when patriotism sees its true relations to the cosmic order, we shall view things in a truer perspective and find our real mission in guiding the world to a more active quest for truth, more devotion to it, more appreciation of the rôle that pure science plays in modern civilization, and above all the new conceptions of what man really is and of the environment which he needs in order to resume the progress so tragically arrested by the world war.

(4) As I read Morse's *Life* of my classmate and long-time friend, Hamilton Wright Mabie, I am struck with the contrast between us in the fact that he was always making friends while I made perhaps

almost as many enemies as friends in my more limited and special sphere. For some forty years Mabie spent a large portion of his time and energy as a literary critic. Hundreds and probably thousands of books passed under his hand, and yet so appreciative was he that I doubt if he ever incurred anything more than regret, and almost certainly never enmity, by negative criticism. Thus in his later life he was known and loved by nearly every *litterateur* in the country.

For nearly two-score years I, too, have been a critic in a more restricted field and characterized hundreds of books and memoirs connected with my specialty, particularly since my *Journals* were established. In the exercise of this function I have not been able to resist the instinct to criticize negatively where I thought this due, and before my first serious book was published, in 1904, I had often heard of people who were sharpening their knives for me and praying "Would that my enemy would write a book." I think this had much to do with the fact that every book I have published has been criticized with a bitterness that, after making all allowances for my imperfections, I believe to be excessive, although I ought to add that even the virulence of some of these attacks has not been without influence, by way of compensation, in evoking, perhaps in some cases no less extravagant, praise by my friends. I have often had a very deep and strong conviction that some authors were superficial, partisan or doctrinaire, published needless details and useless tables, were hypermethodic, prone to use others' material with inadequate recognition, were illogical, too discursive, lacking in perspective and losing themselves in details, etc., and the damning thing is that in many cases I have said so in print, perhaps too frankly and even without adequate justification. On the other hand, I

do believe that I have encouraged many, especially young writers and investigators, and possibly sometimes shown undue appreciation of really rather crude productions, especially if I thought they gave promise of better things.

Beginning perhaps with the "slam" at the then very popular Joseph Cook in several articles in *The Nation,* my severe strictures of the psychic researchers and telepathy, of the old-school philosophers of the McCosh type who insisted on injecting metaphysics into psychology at every point and condemning it as materialistic, and of others who in my early period opposed the history of philosophy as dangerously unsettling, my attitude has been perhaps sometimes too antagonistic, at least from the standpoint of my own interest and that of my *Journals,* subscriptions to which have sometimes been canceled in high dudgeon by those who thus took offense. Nor is this the worst. My geneticism or advocacy of the view that the soul of man is no less a product of evolution than his body, which seems to me a so fundamental scientific postulate, has from some quarters brought severe strictures and even ridicule because, as I have pointed out elsewhere, our science has been but little influenced by evolution. It is this that contributed its quota to the persistent misrepresentations of child study which, especially in its early days, had enough imperfections of method to justify a good deal of criticism.

Again, so far as life is measured by progressive religious *éclaircissements,* my own development here has gone far beyond what most of my contemporaries who have paid any attention to it believe justifiable. I long since ceased to believe that the problem of the existence of the soul independently of the body was a legitimate scientific question and have never been able to understand how so many thinkers like James,

Howison, Royce, Calkins, etc., could be so profoundly influenced, consciously or unconsciously, by the desire to attain convictions that give them rest and peace as to the essence and fate of the soul. I long ago accepted and became reconciled to the conclusion, which it seems to me an unbiased orientation should bring home to every candid and disinterested thinker on these themes, that the animal and the human psyche have a similar origin and destiny. So, too, such psychological insight as I have been able to gain from the Christian Scriptures seems to me to show that all supernatural elements and belief in all forms of discarnate spiritual beings, and even the conception and belief in Deity itself, are to-day entirely explicable on a natural basis by the newer psychology. This, instead of being the justification of a higher theism, as I hold it to be, has been interpreted by my critics as atheism and worthy of the objurgations meted out to that supreme heresy. This very topic, the psychology of religion, has, in fact, rarely found entrance into our academic curricula.

Worst of all, my very radically qualified but enthusiastic attitude toward psychoanalysis, which in no American institution has been given so much attention as by me here, has seemed to many to be quite without the pale, and sex psychology is still in most places under the severe ban of prudery while not a few of our most eminent psychologists in this country have condemned it, often in the most holophrastic terms and with only the most superficial knowledge of it. Thus for most of my work there has been perhaps quite as much criticism as commendation, and in a few cases I have had to recognize the fact that the bitter antagonisms engendered by the old troubles at Clark that culminated in the hegira of 1893, had lent some animus to and accentuated the personal note in such criticisms, not mitigated by the fact that the Uni-

versity itself was thought in some quarters to have failed to realize the great expectations with which it was inaugurated, which is only too true. At any rate, all things considered, it must, I think, be admitted that much if not most of my work, such as it is, has been done under a heavy handicap, so that I have not been entirely able to discard all traces of an apologetic attitude and I feel that, on the whole, I have not had quite a fair, impartial, fighting chance. Part of this is doubtless due to my own inherent imperfections. Perhaps the vicissitudes of my life from boyhood up have tended to make me unduly self-conscious; perhaps I have been too tactless or lacking in some elements of both *Gemüt* and *esprit;* perhaps I have been too narrowly focused upon my themes and my students. I certainly never have formed the habit, as James and Mabie did, of wide correspondence with sympathetic minds at a distance and have never yielded to the impulse I have often felt toward authors that have helped me most, of writing and telling them so, or to enter into epistolary relations with those to whom I feel intellectually most akin, much as this would have added to my joy of life and given me the wider personal rapports I should have so profited by. I think I do not lack the moods of exuberant effervescence and abandon so delightfully shown in many of James' letters, although this in me has its outcrop only in social and personal relations with my closest intimates. At least I have felt intensely that I was never able to quite do justice to the spirit of *camaraderie* and good fellowship that I really feel.

Perhaps my oscillations up and down another scale which psychoanalysis has lately brought into prominence for characterology have also been unusual, namely, that of activity and aggressiveness on the one hand and passivity and even flaccidity on the other. The first is the mode of attack. One rushes

on the street, upstairs, up hills. The child has spells when it wants to tease, nag, hit, break, provoke, fight, not so much from malice as from sheer exuberance of vitality. He breaks out, disobeys, defies, perhaps runs away, yielding to the primeval lure of the sea, the steppes, the mountains, which drew our forbears; and loves mischief, outrages convention, says bad words, courts danger, doing things he generally fears to do, or indulges in every conceivable eccentricity; grimaces, mocks, flouts authority with a true kurophobia; lets himself go without restraint in the riotous ways of extravagance and abandon—all because the stress and urge of life are so strong. Anon the same child is demure, quiet, docile, passive, receptive, perhaps even flaccid and inert or dull and apathetic to the point of stupidity for hours, days, weeks and, some think in certain cases, for years, by way of reaction.

Near the dawn of puberty (the age of the hobbledehoy in boys and of the "flapper," [3] *Backfisch,* or tendron in girls) the oscillations on this scale are greatly accentuated. The human fledgling now crudely and grotesquely affects all the ways of adults and again is a child, as if reluctant to take the further strides on toward maturity to which nature impels. Thus character and conduct are as unsteady as the voice at the age of mutation easily breaking into childish treble. Ambition and discouragement, the sense of superiority and of inferiority, progress and regression, succeed each other, and childhood is molted only by a series of perhaps almost convulsive struggles. In the one mood to think or have an impulse is to act, while in the other the receptive traits or faculties seem to have lost their connection with the effective. Now, both these impulsions have their place and their right relation is fateful for life, and it

[3] See my "Flapper Americana Novissima," *Atlantic Monthly,* June, 1922.

is here that normal differences, not only between the sexes but between temperaments, are widest and most apparent.

The application of this distinction to myself is very satisfying to my self-knowledge but not very flattering to my estimate of that deeper self that underlies all such perturbations. I think, thus, that all my life has been marked by alternating periods of activity and passivity (extro and introvertive: Jung). During the later Ashfield period there was a predominance of the former. At Easthampton and in the early college years I was receptive and wrote very little and read much. But in the latter part of the academic course I attempted many kinds of literary productiveness, crude as it was. This aggressive mood was little in evidence in the seminary, in the first German period, and the four years at Antioch, but was resumed in the second triennium abroad and became dominant at Baltimore, weakening again during the first years at Clark and then coming to the fore once more. This is how I should plot the larger curve. But there is another oscillation of less amplitude superposed upon this. All my books and even more serious articles have been written with a certain fervor in which I am very prone to overwork and, as the task proceeds, I am pushed by an interest that takes possession of me and which I have to restrain. And after each is done there is always a feeling of impotence and exhaustion in which I lie fallow and abandon myself to the luxury of reading, which at first tends to be desultory until slowly another center of interest is constellated which may culminate in a new urge to write in order to express my personal reaction upon the material that has been accumulated. It may be a delusion but I believe that I have always written primarily to clear up and organize my own mind, with a kind of housecleaning motive rather

than to meet a demand or find a market for my intellectual wares. Publishers have often tempted me, in a few cases with alluring financial inducements, to write textbooks or to join others in some series, and topics are often proposed for addresses. But most such suggestions I simply cannot respond to and when I do the result is commonplace and gives me no inner satisfaction.

Of course I always want my "cause" to prevail but I do not readily enlist in organizations that come to me ready-made by others. This to a fanatic Freudian may suggest a certain autoerotic or even narcissistic trend and such an inference may not be without a certain partial justification according to the psychoanalytic scheme of things. But it is not because I cannot work with others or want to be or think of myself as unique but I justify this kind and degree of self-indulgence on the ground of self-expression. The fields of both psychology and education are new and largely unexplored, and all my own efforts in these fields have been pervaded by a strong sense that a great synthesis is ahead into which all that is now doing will ultimately be incorporated as data, and some place in this science of the future is all that the most ambitious of us can at present hope for. Also, perhaps some one sometime may be able to resolve what little I have done back into symptoms of my underlying diathesis and here may later be found the only real value of our life work.

So, while I hope this autobiography may be of some such use in some more advanced stage of our science, I have really written it primarily, as stated in the Introduction, that I might understand myself more fully and realize how every item of my psychology and philosophy, whether acquired or original, grew out of my life and my basal and innate traits. How I have wished that I might find aid in this at-

tempt at self-analysis from those who were more competent and could treat the data more impersonally so that I might profit by their study of me, for this would be the consummation of self-knowledge. But I am too ambitious in hoping for anything of this kind. Emerson says in substance that the supreme success in literature or philosophy is to have others explain you. Would that the autobiographies of those most famous in these fields afforded the data now necessary for such an explanation of theories by their authors' lives!

Would, too, that I had achieved more and better self-expression and had the courage to note even more frankly than I have done certain intimate aspects of my own life, although I have gone farther than most in this direction. But this is perhaps the point where I should record a confession—that I have suppressed considerable material of this kind which has been carefully written out. Should any reader criticize what is here set down he should not forget that these questionable points are only aspects or episodes of an autobiography which, despite its frankness, has certain reservations due perhaps to a cowardice which has caused me to fall below my own ideals and standards of unreservedness, and that certain passages are only keys to rooms in my house of life that I cannot open to the general reader, at least during my life. The years preceding the lateness of my first marriage, in the early thirties, and the ten years after the tragic death of my first wife before my second venture into matrimony were years of most intense activity and of sublimation. The same is true since the unhappy separation after another decade. In these intervals I ought to acknowledge the stimulus I owe to the friendship of two other noble minds.

Perhaps the most basal trait of my own diathesis is a dread of every form of conflict or disharmony.

Any marked disagreement with those nearest me is often almost paralyzing. If I am not assured of sympathy in my social environment it is hard for me to speak or to assert myself, and there is also a crust of diffidence that has to be broken before I can come out of my shell. Thus there is an inveterate dislike of the open, a dread of being conspicuous, a love of obscurity, of the simple private life, of homely commonplace people, that has kept me in touch with the rural friends of my boyhood. It is this that has impelled me all these years to revert so many summers, if I could, to the old life of the farm, to revive and cherish its associations and memories, and thus to find peace, rest, and renewal. If my career had been wrecked at any point—and this is increasingly true of my later decades—I believe I could have found unwonted compensations in leading the plainest sort of rustic life and associating with the plainest people. This to me would have been the apogee of psychic flaccidity, which psychoanalysis would correlate with the almost masochistic subjection of my mother (as shown in the above diary) to the will of God.

But, on the other hand, in conflict with this quietistic trend has always been a very virile *Aggressionstrieb,* first against early surroundings—physical, social, intellectual, religious—and then against educational, psychological, and other prevalent culture currents, so that many of my own scientific interests have grown somewhat apart from those most cultivated in the American Psychological Association; and this prompted a protestant and sometimes polemic attitude on my part. Thus despite the initial dread not only of every degree of hostility but even of the publicity in which everything of this sort is so prone to result, it always brings a certain exhilaration that relieves life for the time being of tameness and adds a gamey flavor to it. It is in this "I-can" mood that I have

overestimated my powers and drawn too heavily upon the future by beginning many more things than I can ever hope to finish, which will certainly leave me in at least partial bankruptcy in the end. The preposterous childish reveries of being a great musician, orator, etc., in which I still sometimes catch myself in vacant hours, are unreduced vestiges or rudiments of this *élan* and would very likely be the inception point of megalomania or delusions of greatness if I ever fell a victim to this; while the dread of discord would make a rich soil for delusions of persecution. Magnan's two attitudes toward the world which, he thinks, in their extreme form would have their crux at the moment when the patient who has long felt himself a victim of persecution turns upon his enemies and becomes a persecutor, illustrates this ambivalence between activity and passivity. In my own inner experience I know all about the rising tide of confidence that I have done and said a good thing and how it feels to defy and even taunt opponents, on the one hand, and also, on the other, how this tide ebbs and brings a feeling of the uselessness and worthlessness of everything one has tried to do, and even agreement with and actual joy in the castigations by one's bitterest critics, with sometimes a feeling that they would have been justified in going much farther and a wish that they had actually done so.

As to narcissism, which has now come to be one of the most important categories of characterology, I believe I have never had much trace of it. As a psychologist I have applied myself much to self-study, but its results have diminished and not augmented my self-complacency. True, there was a decade or two in middle life when I did give unusual attention to personal appearance, for example, having all my clothes made by one of the best London tailors, whose address I often had to give to friends who had a highly

developed clothes consciousness; nor can I deny a high degree of pleasure at judicious compliments from the competent. But public commendation confuses and sometimes paralyzes. The custom, too common among gushing women, of telling a speaker to his face that he has said wonderful things, stirred their souls to the depths, etc., is a dangerous thing and has given many a clergyman and platform and matinée idol a kind of complacency that means nothing but arrest; and I believe I have a healthy horror of such experiences as I have had with this as a public speaker. I know many, too, who when their articles or books are finished find great satisfaction in reading and rereading them, which is another form of self-worship in which I never indulged. On the contrary, I have almost always found reading my own productions to be hard and sometimes—when I have had to do it to answer criticisms—almost repulsive.

I can sharply distinguish, thus, between two very distinct attitudes as I have said above. The first is marked by effort, attention, aims at achievement and accomplishment, and upon this (for example, when an article or book that has kept me keen and tonic for months or perhaps years is finished) there always supervenes a period of drifting, lassitude, receptivity, and sometimes utter inability to produce or attempt any kind of constructive creative work; and then slowly, after perhaps months and generally with some newer and wider orientation, the demon of work again asserts itself.

And now I must confess, if I am to maintain the frankness with which I entered upon this life-survey, to a trait of which even my intimates never knew the strength or manifold expressions, namely, a love for glimpsing at first hand the raw side of human life. I have never missed an opportunity to attend a prize fight if I could do so unknown and away from home,

so that I have seen most of the noted pugilists of my generation in action and felt the unique thrill at these encounters. Thrice I have taken *privatissime* dancing lessons from experts sworn to secrecy, and tried to learn the steps of ancient and some of the tabooed modern terpsichorean performances—just enough to know the feel of them—up to some six years ago, although I have always been known as a nondancer. In many American and especially in foreign cities (Paris, where vice was most sophisticated; London, where it was coarsest; Vienna, which I thought the worst of all; Berlin, New York, San Francisco) I found, generally through hotel clerks, a guide to take me through the underworld by night to catch its psychological flavor, and once in a den of Apaches in Paris we were assaulted and had, I fancy, a rather narrow escape. In some of these resorts even police escorts dared not go without removing their badge of office, while in other dens no outsider would venture without an escort ostentatiously official. In these excursions I have seen some of the most bestial traits of which morbid and depraved human nature is capable, and heard of even worse.

In the two weeks I once spent at an asylum for the blind I blindfolded myself for an entire day to realize how it seemed to be without sight. Again, I learned the deaf mute alphabet to get closer to the inmates of an institution for these defectives; have seen three executions; attended countless police courts; visited many reform schools, poorhouses and pauper lodgings, jails, prisons, houses of correction and refuge for vagrant girls from the street, and many institutions for the insane; have collected photographs and sometimes made the superficial acquaintance of scores of freaks of circus side shows, a topic on which I had planned a memoir; visited morgues and listened to the gruesome tales of their keepers; examined the scores

of charred remains of the bodies of those burned in a New York excursion boat and also of those drowned a few years ago in the Chicago river; have had spells of attending the meetings of fanatic religious sects and of revivalists, from Billy Sunday down; have found admission to secret meetings of radicals and revolutionists of various types; and saw much of the social evil in many cities, especially during the period when I was president of the Watch and Ward Society. In all these excursions to learn how the other half lived I have been far less interested in institutions or organizations and methods than in personalities, and while I have not sought or attained expert knowledge or even attempted to be an authority in any of these domains, I believe that such zests and their indulgence are a necessary part of the preparation of a psychologist or moralist who seeks to understand human nature as it is.

Life is, in a sense, boxing the compass. Its early years are normally spent in an atmosphere of sentiment which envelops it like a warm breeze from the south suggestive of the humanities, of the freedom of out-of-doors, of life close to nature and the religious feelings it inspires, with a strong proclivity to credulity, which is only excessive belief, and represents in a sense the lush, rank growth of the summer of the soul. Youth is akin to a western orientation, for the occident has always beckoned the course of empire and in it have often been located the El Dorados of hope and unfulfilled wishes. It is a perpetual symbol of the direction of ambition and progress and is full of the beckonings of the future. Here expectation and desire deploy, and youth and enterprise look and perhaps go westward. The north stands for the clear cold light of reason, the frontage of maturity, and is preferred by science. If the westering sun invites

man to follow its course, so the clear northern sunless sky invites to cool, dispassionate ratiocination and criticism, often cruel to our inclinations but where the muse of truth at any price and for its own sweet sake has her eternal abode. Men absorbed in the quest of laws and verities fixed as the eternal pole star need a good northern light as much as a microscopist does. The orient stands for history and reminiscence. It is rich with the accumulated wisdom of the past. It opens the widest fields for archæology and in this direction man retraces the stages of his development. Old age in a sense fronts it and loves to dwell on what has been, so that autobiographies, like archæology, turn toward the rising sun of life and follow its ascent in the eastern horizon. Thus, life completes its course in four stages or has four faces instead of two like Janus, and we do not know it until we have viewed it from all these points of the compass.

From the standpoint of facilitizations and repressions, the former start with the initial impulsion of the *élan vital* and push the individual and the race ever onward and upward to be, do, get, enjoy everything possible to man's estate. The latter represent the checks, inhibitions, periods of arrest and regression which make it not a triumph but perhaps a tragedy. If we could eliminate the latter and depict only the former, the field of history would be greatly reduced, as H. G. Wells has sought to show by his treatment of it all in two volumes; and so the life-story of the individual might be greatly abridged if only achievements and successes were noted and all failures left unrecorded. We can never do this, however, because the record of success can never be complete without taking careful stock of the obstacles within and without that have to be overcome, and the great part of the energy of every life is devoted

to the overcoming of difficulties, so that the life of no one, even the most favored or prolonged, ever succeeded in realizing all its ideals and in looking back with unalloyed satisfaction.

For myself, I wish to repeat that in writing this sketch of my own life and in making it so frank and intimate I have been influenced most of all, not by any motive of apology or justification, save in Chapter VII, but rather by the wish to take the eastward senescent view in order to gain a truer and more comprehensive self-knowledge. As a result I realize that the writing of it has given me a deeper insight into and a better understanding of myself than I should ever otherwise have attained, and it will thus have for me a very important significance as a directive of the future work which I so earnestly hope to be able yet to do in the world. It has certainly given me courage and hope to believe that I may yet, with the aid of what has already been begun, do something of more real service than anything I have so far accomplished. A second motive has been to enable such close and intimate friends and relatives as may read this sketch after I am gone, not so much to think better of me as to know me better and to draw some lessons from my life, the moral of which may really prove more valuable than my writings and be helpful to their own.

So far failures and disappointments seem to have played a somewhat preponderating rôle. My boyish dreameries of fame, as above noted, were early aborted but left little pain because they were superseded by others. The long and trying period of waiting and hoping in vain for a fit teaching position, with the atmosphere of despondency with which it enveloped me for years, left, I think, some predisposition to somber views. Then came the wreckage of my early expectations for Clark University and hardest of all to bear the widespread impression,

by a very few individuals assiduously cultivated, that I had been at first fatuously and uncritically extravagant in my hopes for the institution and later somehow false to those I had attracted here. The silence that circumstances enforced upon me was taken to mean that I had no excuse or justification. As a result I constantly met misrepresentations and disparagements from this source of which three decades have not entirely made an end.

Again, I was sanguine enough to work for years, as above described, in the hope of establishing an institution that should be devoted to the study and welfare of children and in 1910 felt justified in not only making definite plans but in beginning the development of such an institution, only to see all these efforts come to naught. When I turned to psychoanalysis it was with the ardent hope and belief that we had in it the promise and potency of a new dispensation in normal psychology, and for the more than a decade that I wrought and taught it here I was, so far as these hopes were concerned, little more than a *vox clamantis in deserto,* for up to the present it has found but little academic recognition among psychologists, although I still believe it contains a leaven that will sooner or later pervade the entire lump. Yet again I realize that I have begun and spent much time and effort in domains in which if I do no more (at least unless I should achieve the forlorn hope of finding a fit literary executor) a great body of lecture notes, products of years of diligence, will have to be burned ultimately, so that if I do not sugar off my data as best I can in the form of one or more volumes upon the feelings, and early childhood, at the very least, to say nothing of another on psychogenesis with special reference to the animal soul, psychoanalysis, and the psychological aspects of nutrition, my life will end without a well-rounded

period and, as it were, in the middle of its sentence. Of course I realize that here I may be and probably am living in a fool's paradise because from the reception of most of my so far published volumes I have no reason to expect that those now unfinished would do any great good in the world, so that my desire to round them out is very likely in large part a form of self-indulgence, the negation of which will be no loss to the world but only a check to my own egoism. This ambition very likely has come to vicariate, by processes now well known, for my earlier belief in a personal immortality of the soul, which but for my early orthodoxy would have been less. Thus this latter made stronger and more extravagant its present surrogate.

In view of all these failures, however, I am surprised to find that I am not, after all, overwhelmingly pessimistic but, on the whole, inclined to find hope at the bottom of the Pandora casket. I certainly have been manifoldly blessed in my friends, some of whom have stood by me in every vicissitude and of whom so many have lately expressed their appreciation of what I have succeeded in doing. I surely have helped my students far more than I have the readers of my books. The publication of most of these books has given me, however, great inner satisfaction and all of them have found appreciative readers and every one of them bitter critics. It is certainly one of the great satisfactions of life to be able to register in published form one's own most mature views upon any subject, although the sense of having come to terms with that subject and of having done one's best for it is never unalloyed by the deeper and later realization that far better things might have been and are sure to be said upon it. Well-matured books or memoirs do organize our very neurons and make mentation more unitary and more economic. I have

never understood how any one in a field so rapidly growing and changing as psychology could ever use his own textbook year after year, and the fact that I have never been willing to make such use of any of my own volumes but try to forget them and turn to other things as soon as they are done has probably saved me from the mortification of a progressive realization of their shortcomings and allowed the secret and comforting hope to linger that if they lack appreciation now they may find it later.

The philosopher Herbart said there was no joy like that of eternally working over ideas. Lotze's conception of heaven was of wise men of all ages perpetually conversing seminary-wise on the highest themes, and Lessing ranked the pursuit of truth higher than its possession. It is in this sense that I count my own life as happiest. It has been my supreme good fortune to love teaching advanced students, and above all other things it is this that I would have chosen to do had I been a multimillionaire and free from the necessity of self-support. There have been few griefs and calamities that have beset my way from which I could not find diversion and poise in the field of study then uppermost in my interests; and interests really constitute life, the success or failure of which may be measured by the number and strength of these, provided of course they are legitimate. Thus I have known not only what love is but felt all the zest of the love and pursuit of truth, and the feeling that I have really added ever so little to the sum of human knowledge and affected ever so little the current of thought in education and in the study of human nature, is a satisfaction that compensates and atones for all disappointments and leaves some surplus to the good, so that I believe that while there have been in my life unusually wide oscillations up and down the pleasure-pain scale, the former have,

on the whole, predominated. This at least is my dominant mood.

If the above four dimensional orientations in space are only symbols of human stages and types (which always interdigitate) time proclivities are more really significant of both and suggest other lines on which we may sometime measure the later stages of psychological age.

1. The young live in exquisite rapport with the present under the influence of the pleasure-pain principle. They are improvident and victims of the Now as well as of the Here and hence are carefree and happy-go-lucky. They think not often or much of consequences or futurities, and the past concerns them very little. Hence they may drift and become opportunists, waiting for something to turn up. Their instinct is to make the most and best out of each passing hour and day, and they are incapable of far-ranged plans. They enjoy to the uttermost each passing moment and cannot profit by experience and its proverbs, while remote results to health or even career make but slight appeal to them.

2. Youth begins to dream of the future and is the time for life plans and the selection of callings. These foregleams are first only ideals and perhaps reveries but they often preform destinies. Youth thus slowly learns to subordinate the present to the future, to forego an immediate for a more ultimate satisfaction. Some can deny themselves all temporal in the interest of future joys, like ascetics who cultivate misery hoping for postmortem compensation, an attitude which priestcraft has always developed and profited by but which is now being challenged as never before by the principle "One world at a time and this one now." This bankruptcy of hope often has a most tragic aspect. Plans may be extravagant, as they are

in this country where every youth realizes that he may possibly become president or a millionaire, but they are all of this life and generally limited to maturity, with little forethought of old age. The future is a great muse and has inspired all great prophets and given the world many interpretations of a golden age, utopias, and ideal states and societies. It is free to all to construe according to their temperament. But with the decay and utter ineffectiveness to-day of all hope and belief in a life beyond the grave, man has become myopic when he looks ahead. Even the future of this world and of his later posterity has ceased to seriously affect him. The influence of the future for some is at first limited to their own mature lives and later to their children, and very rarely considers their remote posterity and still less the future of the world centuries hence, so that they become careless not only of natural resources and even pile up national debts for their children's children to pay but in every way overdraw their account at the great bank of futurity.

3. But there is no way of interpreting the future except by the past, and this is always sobering and inevitably brings a critical attitude toward ideals. Myth tends to glorify the past, history to conserve it, and antiquarianism to revel in it, sometimes to the neglect and even disparagement of both the present and future. One type of old age turns to it, while another type tends to visions of what is to be hereafter. The past is the stronghold of conservatism and gives its chief authority to precedent, tradition, and the *mores,* and tends to habituation. It tones down extravagant expectations by the very insistence of its admonition to judge the future by the past.

Measured by these standards, I think in my own life the present was rather prematurely and perhaps too much subordinated to the future. In youth I

loathed nearly all of my environment and its duties and prospects, and was almost gaspingly interested in the possibilities of the future; and this trait, favored by my early puritanical training (if, as I hope, it did not make me in later life neglect my family for its very urgent Present and the ever beckoning Future) brought me to maturer years with less resources of present enjoyment and recreation than many of those whom I best know and most respect. It is true I have always had favorite modes of recreation and even self-indulgence, but the spirit of work, which has sometimes been almost an obsession, has made me not infrequently oblivious even to holidays and the social enjoyments which others find with their friends and perhaps the yet larger one of correspondence. For many years I have been a member of two very active societies, the one devoted to antiquarian and the other to historical studies, to both of which I have offered modest contributions. But I realize that all my interest in the past is connected with evolution, and where studies in these fields show no scintilla of this my interest fades. The most common criticism of my perhaps too kindly and best friends is that my views are ahead of the times and may meet more favorable consideration later. Even if this be so, I cannot forget that to be really ahead of the times is often as fatal to real success and as much a sin against the *Zeitgeist* as to be behind the times.

I have often wished I were a better "mixer" with my equals, that I enjoyed more the social functions so prominent in all our academic meetings and the convivial hours and banquets of learned societies, that I had more intimate personal friends along the lines of my chief interests, that I was a better letter-writer instead of abridging and being generally rather averse to this function, and that I could respond more heartily, when I really have the impulse to do so, to

the advances of those who have been my most intimate and cherished friends instead of giving the impression, as I often do to my great regret, of being somewhat unresponsive sentimentally. I believe my whole affective life is as strong and deep, and perhaps more so, than that of most I know, but I have never been able to entirely escape the early atmosphere of repression of sentiment. Only my students know that I am at heart truly the "good fellow" that I really want to be with both my equals and my superiors. With both these, especially the latter, I have never been able to entirely overcome a certain feeling of inferiority, which began to be somewhat acute at the Easthampton period and to compensate for which has sometimes been a spur to do my best things and even to criticize too severely those to whom I should have looked up as authorities.

Here, again, I realize limitations due largely to my early life and perhaps accentuated by the vocation of a teacher, who falling into the habit of speaking *de haut en bas* to those less advanced finds it a little hard to take the right attitude of appreciation and docility to his peers and perhaps becomes resentful of criticism that is not only just but wholesome. At any rate, as I advance in years there are few things I crave more and feel more keenly the lack of than companionship. The almost inevitable isolation of old age is hard to bear, and I think I now have no greater enjoyment than in occasional visitations by friends, sometimes with prolonged converse and even discussion upon topics of vital interest to both, especially now that I have time for it. Perhaps it is partly to fill this need that since my retirement, however hard I work, I find a marked increase in a habit I have always had more or less, of having an interesting novel, perhaps of a very exciting and even lurid type, to which I can turn at the close of the day's

work, and I certainly never frequented places of amusement as much or accepted so many invitations to dinners and other social gatherings, or enjoyed them more than at the present time.

I realize as never before that what little I have accomplished has been despite unusual resistances, and I find some satisfaction in believing that if I have sometimes been too aggressive, I have been, in heart at least, a good soldier in the battle of life. I have certainly been sincere, with a strong inner conviction and a sense, which I cannot believe entirely illusory, that I had a call in the large field of the higher vocation of man as a real *raison d'être*. I love my work and the simple life, I revere simple justice between man and man, have made friends whose loyalty and companionship is beyond all price, and have learned to take ever greater satisfaction in the primal joys of existence; and in these I find growing compensation for all that I have failed in. Nevertheless, I feel more and more deeply that if my life ends or if working power abates before I have finished some of the most advanced things I have begun, which, if I can do justice to them, I feel a deep assurance will be better than anything so far accomplished, it will be like a story without the last culminating chapter. Thus, I have tried in the preceding pages to survey and take stock of my life thus far in order that I may be more likely to be guided to the right orientation for what remains of it, and my hope and even prayer to nature, fortune, or all the gods that control human destiny, is that I may have the strength and years to realize these ambitions that mark the youth of my old age. At any rate I record these senile aspirations as a part of the psychological phenomena perhaps characteristic of my time of life.

The straitened circumstances of my childhood, youth, and early manhood should, it would seem, have

tended to make me overprize wealth but they have not done so. Not only have I not hoarded but I have repeatedly refused opportunities I was convinced would have greatly increased my income. It is a genuine satisfaction to me now in the retrospect stage of life to realize that I have not and never did have (excepting a very small parental legacy) a cent which I did not earn or get in return for what I deemed its full equivalent in work or service. I have never sold my name, as I have been urged to do first and last perhaps a dozen times, such propositions in their more usual form being to appear on the title page as coworker or editor of texts and other books or series of them which I should have little or no hand in making. The largest of these schemes dangled the prospect of at least a hundred thousand dollars as my eventual share for a series of school books and apparatus. All schemes of such a nature, although sanctioned by certain eminent precedents and examples, seem to me not only unethical but, what was yet more effective in keeping me aloof from them, essentially uninteresting; at least there were other activities which had a vastly stronger appeal.

For this I frankly praise myself although my fancy that I could do more good in the world by following my own inclinations may have been a delusion. I felt this at the time but yet never hesitated to take the risk of following this inner lead, although I also realized that it might be a form of self-indulgence. I do not think, however, that it involves any overestimation of my own abilities along the lines I preferred and it saved me from the really dreadful fate, the curse of the industrial world to-day, of having to do things I hated for pay. Had my father held on to his Wisconsin three hundred and twenty acres only a little longer he would have been on the way to becoming a multimillionaire. There were also

several other facts and events in my life which I will not here take the time or space to enumerate that lead me to think that I may have had, not one but several rather narrow escapes from being rich. If this be so, I am very far from having any regrets. In youth I had just the temperament to be ruined by wealth. I should have probably run through it, disgraced, and very likely killed myself long ago. Poverty was my salvation.

Again, I would not sell at any price the knowledge my course of life has enabled me to gather. Nor, finally, would I give so large a portion of my time and energy to safeguarding and nursing a large property. I know no class of men quite so hard-boiled and uninteresting and, indeed, unintelligent outside the hard and fast and often narrow limits of their own interests as the American millionaires, with several of whom it has been my fortune to come into more or less intimate relations. Great material possessions are, to be sure, great educators and give unusual sagacity and insight where any kind of financial values is concerned. But only when the very rich reach the stage that few of them do, when they are anxious to expropriate their wealth and seriously study where it can do most good, does education from this source culminate. For myself, nothing would tempt me to be enrolled on the list of the ten or twelve thousand American millionaires if I had to retain the wealth and devote the time and energy necessary to safeguarding my properties, investing and reinvesting where necessary, insuring, looking after taxes, rents, worrying about risks, etc., and instead of owning my property slowly becoming its slave.

Each man has a normal amount of wealth as he has a normal weight of body on which he can best thrive and if this is exceeded he is like fat men handicapped in all their movements by superfluity. Like

weight, too, wealth should decline as old age comes. No one can spend the energy of his best years in any phase of the all-absorbing money hunt without becoming arrested and perverted in his development as man, which is our real vocation. "Money Bags" is as grotesque in soul as comic skits make him in body and circumstance. Not only do the interests of the rich very rarely coincide with those of the community as a whole but nowadays (probably more than before the war) capitalists must compromise between conscience, insight and honor on the one hand, and the petty and even grave meannesses of practice that are ever arising and becoming current, on the other; or between corporate and individual standards in the conduct of big business. If I were sentenced to be rich now I should grow neurotic over insurance risks, problems of competition, fluctuation of prices and markets, labor problems, anxieties about special legislation, tariff rates, new fields of fruitful investment, and perhaps efforts to reform our present industrial system. The business man of to-day should be an economic philosopher primarily intent upon a larger service, and he is dwarfed if he forgets or sacrifices these to the lust of personal advantage. Hence if I were rich I should find too little assurance in the light of what self-knowledge I have been able to acquire that I should succeed where so many have failed, in maintaining my own integrity and self-respect, and get through the "needle's eye" without promptly unburdening myself of all possessions not actually needed. So I am better, healthier, and happier as I am—thank you, Fortune—with just enough to give me an assured sense of freedom, leisure, comfort, and safety from want to the end, along with a deep feeling that I have earned these by a life of hard work for the improvement of at least a small section of the human race.

The dominantly sad note of my life may be designated by one word, isolation. A country farm far from the village; ambition shared by no boys of my age; misunderstood by my father; the fitting school with classmates too advanced and mature for companionship; college, with only a few choice intimates and congenials; the seminary, where I was suspected of heresy, which thus hindered associations or even broke those I had come to prize, as had also happened in my later college course; the years in Europe, where my only friends were foreigners speaking an alien tongue and with no one to advise or counsel; my interest in studies slowly shaping along lines which very few in this country cared for; nearly a score of years after college graduation before permanent and final settlement in the kind of academic chair I wanted; the tragic death of my first wife and six-year-old daughter just after reaching Worcester; the ten years of living alone that followed; the débâcle of my great hopes and plans for Clark University during its third year; the long period of misunderstandings that followed; the uniqueness of our plan which set us more or less apart; some *odium sexicum,* which began with the publication of my *Adolescence* and was intensified by my introduction of Freudianism into this country and by my teaching some of its essentials, although with great reservations (a topic still practically taboo by the American Psychological Association, which was organized in my house and of which I was the first president); some acute experiences with the *odium theologicum* which followed the publication of my *Jesus, the Christ, in the Light of Psychology;* my genetic conception of the human soul as a product of evolution like the body; the crust of diffidence that always had to be broken through at every public appearance; the incessant danger that if this is broken

I be negative and give offense by somewhat excessive antagonisms; the disappointments about the Children's Institute—all these handicaps gave me a deep feeling that I had never quite done justice to myself. This, too, may account in some degree for my yet very strong youthful ambition, despite the handicap of age, to finish before I die the work along not one but several of the above lines I have already given so much time and labor to, and thus round out my life by doing a few things which shall be better than I have ever yet been able to do. I never so ardently longed to accomplish something really worth while in the world as now and never saw so clearly just what I want to do or felt so strongly that I can do it if I only have the time and strength. Yet all the time I know that the Supreme Queller may at any time now intervene and cut down all these aspirations as the mower does the last lush crop of rowen before the snow and ice of winter kill it to its very roots. Thus lust for mental increases after that of physical fecundity fails, a phenomenon characteristic of my stage of life and which I have tried in my *Senescence* to come to terms with and understand, knowing all the while that this feeling of a new inspiration is somewhat falsetto and probably only a symptom. All the while I welcome, cherish it, and will not put it by.

On the other hand, despite all the above, I must count my life as, on the whole, a happy and fortunate one, and that chiefly because I have been very exceptionally able to follow my own inner interests and inclinations. I love my work and have always been able to find solace in it, not only for all the disappointments that I have met but for all the severer blows of fate. This has been almost literally a life preserver. I wonder if any other line of study could have done this as well as psychology, which is in its larger aspects only the study of human nature. Cer-

tainly not for me, with my diathesis and life history. From this point of view I am far older than my years for I have laid aside more of the illusions and transcended more of the limitations with which I started than most. In the views I have attained of man, his place in nature, his origin and destiny, I believe I have become a riper product of the present stage of civilization than most of my contemporaries, have outgrown more superstitions, attained clearer insights, and have a deeper sense of peace with myself. I love but perhaps still more pity mankind, groping and stumbling, often slipping backward along the upward Path, which I believe I see just as clearly as Jesus or Buddha did, the two greatest souls that ever walked this earth and whom I supremely revere. If my intellectual interests have been in the past and present, my heart lives in the future and in this sense I am younger than youth itself, the nature of which I would chiefly understand and appeal to. Thus I find even a kind of second childhood in age more charming than the first ever began to be. Hence I believe I have achieved another new birth superimposed on that of adolescence.

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